

# MARINE RECORD

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## TREASURY DECISIONS RELATING TO MARINE.

ROWBOAT NOT A PERSONAL EFFECT UNDER THE ACT OF 1897.

TREASURY DEPARTMENT,  
August 7, 1897.

SIR: The Department is in receipt of your letter of the 4th inst., in which, referring to previous correspondence in which you were advised that a rowboat could be brought into the United States free of duty as a personal effect under decisions then in force, you inquire whether under the new tariff you will have to pay duty on a rowboat built for you in Canada and used there in your camping expedition.

In reply, I have to inform you that the provision in the act of July 24, 1897, exempting personal effects from the payment of duty, includes only "wearing apparel, articles of personal adornment, toilet articles, and similar personal effects of persons arriving in the United States," and he rowboat in question would consequently be liable to duty on importation. Respectfully yours,

W. B. HOWELL, Assist. Sec'y.

MR. D. S. MASON, New York, N. Y.

SMALL FOREIGN PLEASURE STEAMERS CAN NOT CARRY PASSENGERS FROM UNITED STATES PORTS UNLESS INSPECTED.

TREASURY DEPARTMENT,  
August 30, 1897.

SIR: This Department acknowledges the receipt of your letter of the 18th inst., referring to the carriage of passengers by the Canadian licensed pleasure steamer Owl, from Owl's Head in the Dominion of Canada, to and from Newport, Vt., without complying with the United States inspection laws for the foreign steam vessels carrying passengers from ports in the United States to foreign countries, the owners of the vessel claiming the passengers referred to are carried without charge; and you "request to know whether or not said steamer Owl should be allowed clearance from said port of Newport without compliance" with the inspection laws.

In reply, you are informed that your communication having been referred to the Supervising Inspector-General, Steamboat Inspection Service, that officer reports, as his opinion, that if the steamer Owl referred to by you takes no passengers from Newport other than those brought there on the steamer from Owl's Head, it is doubtful if the steamer is liable to the United States inspection laws; but that if the persons or passengers carried from Newport are others than those brought to Newport by the steamer, and whose original embarkation on the steamer is from this port no clearance should be allowed the steamer until she has complied with the requirements of the United States inspection laws and the decisions of the Department referred to in your letter.

This Department concurs in the opinion of the Supervising Inspector-General, as above set forth.

Respectfully yours,

L. J. GAGE, Sec'y.

E. P. SMALLEY, ESQ., Collector of Customs,

Burlington, Vt.

FOREIGN-BUILT YACHTS OWNED, CHARTERED, OR USED BY CITIZENS OF THE UNITED STATES.

TREASURY DEPARTMENT,  
BUREAU OF NAVIGATION,  
Washington, D. C., Aug. 26, 1897.

To Collectors of Customs and others:

The attention of the officers of the customs is invited to the act of February 5, 1897, printed below. Under the statute, foreign-built yachts, owned, chartered, or used by citizens of the United States, if the ownership or charter was acquired on or after February 5, 1897, are subject to tonnage tax in the United States in the same manner as vessels engaged in trade.

Action will be taken by you accordingly, whether or not the yachts are documented under the laws of any foreign country.

This circular supercedes the circular of February 10, 1897, upon the subject of yachts.

E. T. CHAMBERLAIN, Commissioner.

Approved:

O. L. SPAULDING, Acting Secretary.

AN ACT FOR THE PROTECTION OF YACHT OWNERS AND SHIPBUILDERS OF THE UNITED STATES.

Be it enacted by the Senate and House of Representatives

of the United States of America in Congress assembled, that section forty-two hundred and sixteen of the Revised Statutes be, and is hereby, amended to read as follows:

"SECTION 4216. Yachts, belonging to a regular organized yacht club of any foreign nation which shall extend like privileges to yachts of the United States, shall have the privilege of entering or leaving any port of the United States without entering or clearing at the custom house thereof or paying tonnage tax: Provided, that the privileges of this section shall not extend to any yacht built outside of the United States and owned, chartered, or used by a citizen of the United States, unless such ownership or charter was acquired prior to the passage of this Act."

SEC. 2 That section eleven of an Act, entitled "An Act to abolish certain fees for official services to American vessels, and to amend the laws relating to shipping commissioners, seamen and owners of vessels, and for other purposes," approved June nineteenth, eighteen hundred and eighty-six, so far as the same exempts any yacht built outside of the United States and owned, chartered or used by a citizen of the United States, from the payment of tonnage taxes, is hereby repealed.

Department of State, February 8, 1897.

A true copy.

[Note by the Department of State—The foregoing act having been presented to the President of the United States for his approval and not having been returned by him to the House of Congress in which it originated within the time prescribed by the Constitution of the United States, has become a law without his approval.]

REPORTS ON APPLICATIONS FOR REMISSION OF FINES, PENALTIES, AND FORFEITURES.

Treasury Department, August 28, 1897.

To collectors of customs and others:

In forwarding to the Department applications presented for remission or mitigation of fines, penalties, forfeitures, or disabilities incurred under the laws relating to customs, navigation, steam vessels, immigration, etc., collectors and other custom officers will exercise care to endeavor to set forth in detail such facts as may be necessary for a proper understanding of the case by the Department, and as will enable it to take action without further inquiry.

The report should specify ordinarily the name of the applicant; the name of the vessel concerned; her official number of tonnage; the specific provision of law violated, the date when the offense was committed; the place where the offense occurred; the number of the case; the precise circumstances constituting a violation of the statute cited; any facts tending to show whether or not relief may properly be afforded; the opinion of the collector whether the statements in the application are true, and his recommendation, if he thinks proper to make one. Complaints of infractions of steamboat inspection laws should state specifically that the vessel concerned was navigated in violation of the statute cited in the report.

The attention of the custom officers is invited to article 973, Regulations of 1892, and to section 4496, Revised Statutes, which is as follows:

"All collectors, or other chief officers of the customs, and all inspectors within the several districts, shall enforce the provisions of this title [Regulations of steam vessels] against all steamers arriving and departing.

O. L. SPAULDING, Assistant Secretary.

## CALMING THE SEAS.

Shipmasters are taking to the using of oil to break the destructive effects of the waves during storms. Through the efforts of the United States Hydrographic office, Navy Department, captains have become better acquainted with the marvelous effect a small quantity of oil will have upon breaking seas. For a long time many captains had a strong prejudice against the use of oil, seemingly regarding it as an evidence of weakness, if not a waste of time, material and of course money. For a while this feeling was so strong that captains would not admit that they had spread oil on the waters, even when it had saved them from what might have been a serious disaster. With the approach of fall storms the sentiment has changed. A large number of vessels are being equipped with appliances for the proper use of oil in storms. The most common appliance is a bag, from which the oil drips to the water. This is hung from the side of the vessel, where it slowly

empties itself. A thick mineral oil has been found to be the best. Its effect is to stop the waves, converting the seas into long swells and doing away with the ugly break on the crest of a wave, which seems to do more damage than the actual sea itself.

Vegetable oil was once thought to be best, but now masters are satisfied to have anything of a viscous nature when required to allay a break on the waves.

## ANOTHER NIAGARA.

It is proposed to utilize a Swedish water fall for the production of electric energy. From a translation made for the Literary Digest from the original statement of the project and its purposes, we quote the following:

"In Sweden there is an enormous waterfall, the most powerful uncontrolled natural force in Europe—the falls of Graengede in Joertland, estimated at 160,000 horse-power.

A Swede of French descent, Dr. Gustave de Laval, the inventor of the famous turbine, together with the French engineer, M. Gin, the inventor of the process for making rubies, are to develop the treasure.

"What are they going to make with 160,000 horse-power?"

"That is the question!"

"Aluminum—that goes without saying; rubies; carbide of calcium; cerium; carborundum; sodium—yes, but all this will utilize only a few thousand horse-power. There will remain to be used 140,000 to 150,000 and I will note only the most plausible hypothesis; the iron industry is the only one that can make use of such a Niagara in such a place, far from cities.

"We have then in prospect an iron works, and one in which electricity will play the principal role. Several years ago, some engineers, notably Taussig, discovered the means of producing iron by treating the ore electrically, and with 1,000 horse-power can be obtained 20,000 tons of iron a year.

"The falls of Kraengede can then throw on the market 3,200,000 tons of iron or steel.

"It has not yet arrived, my metallurgical brothers, and it is not yet time to extinguish our furnaces, but some day or other—we shall see.

"Our congratulations to the French engineer who has been made director of the work, and may he be equal to so great a task as that of utilizing a fall of 160,000 horse-power."

## EASTERN FREIGHT REPORT.

According to the freight report furnished THE RECORD by Messrs. Funch, Edye & Co., New York, they state that the improved inquiry for grain coming from both the U. K. and the Continent has quite perceptibly improved our freight market in respect to medium-sized boats for Cork f. o., and we can to-day quote freight for October boats at from 3s. 9d. @ 3s. 10½d.; for November at 3s. 7½d. @ 3s. 9d., with some inquiry for December and later months at 3s. 6d. from Range. Large vessels are in rather less demand, and owners appear willing to accept from 3s. @ 3s. 1½d., with a proportion of oats at from 4½d. @ 6d. less per quarter. Failing this, the opposition to charterers' demand of part general cargo for later months' loading is no more so determined. Berth freights, both to the U. K. and the Continent, continue fairly up to owners' figures for full cargoes to picked ports. The demand for cotton boats is very light from the Gulf, and practically dead for the moment at Atlantic ports. Good steamers continue in demand for time business during the winter months at from 7s. 3d. @ 7s. 6d., delivery in U. S., re-delivery in Europe. There is some demand for the berth to China-Japan, but owners' and charterers' views too far apart to secure prompt settlement. The inquiry for case oil by steam is rather light, and, for the moment, drifting into sail. Little demand is shown from the Gulf ports for timber, or for deals from the Provinces.

Sail tonnage remains in active demand, but business of small dimensions on account of the very limited number of available vessels. Rates continue ruling very firm, but show no appreciable change in any direction.



## NEWS AROUND THE LAKES.

## CHICAGO.

*Special Correspondence to The Marine Record.*

The Independent Tug Line have purchased the tug A. G. Van Schaick from Lydon & Drews, contractors. The Van Schaick was formerly one of the finest tugs owned and run by the Vessel Owner's Towing Company at this port.

The schooner Surprise, of Cleveland, bound to Chicago with lumber from Frankfort went into Sheboygan, Wis., Monday, leaking badly. She sank in the harbor and is now laying there with the water above her rail.

The O. S. Richardson Fueling Co. unloaded two cargoes of Black Horse coal at their north pier dock during the past week, the steamer America 3,500 tons, and barge W. A. Hawgood 2,500 tons.

The schooner George W. Naughtin, Capt. J. Kemming, is keeping up her record for quick trips. She left St. Joseph light, for Manistee at 6 p. m. Thursday, loaded lumber for Chicago Friday and Saturday morning, left Manistee at noon Saturday, and arrived at Chicago at 9 p. m. Sunday.

The schooner Cora A, which arrived here Friday with lumber from Alpena, made the round trip, a distance of 400 miles, in forty hours.

Capt. A. L. Fitch chartered the steamers Byron Whittaker and C. A. Eddy for corn to Buffalo at 1 3/4 cents; steamer John Owen for oats to Buffalo at 1 1/2 cents.

Capt. John Prindiville chartered the steamer Lansing for clipped oats to Buffalo at 1 1/2 cents; steamer Oscar T. Flint for corn to Erie at 1 3/4 cents.

J. J. Rardon & Co. chartered the City of London for corn to Erie at 1 3/4 cents; barge D. P. Rhodes for oats to Buffalo at 1 1/2 cents; steamer George Stone for barley and wheat to Buffalo; steamer Progress, wheat to Erie at 1 1/2 cents; steamer Aragon, corn to Kingston at 3 3/4 cents; steamer Niagara, corn to Buffalo at 1 3/4 cents.

J. A. Calbick & Co. chartered the steamer Toltec and consort Miztec for corn to Buffalo at 1 3/4 cents; steamer Nicaragua, oats to Buffalo at 1 1/2 cents; barges Paisley and Grampion, corn to Buffalo at 1 3/4 cents; steamer W. P. Ketchum and consort Geo. S. Owen, for corn to Lake Ontario at 4 cents, free of tolls.

H. W. Cook & Co. chartered the steamers New Orleans and Fred Pabst for clipped oats to Buffalo at 1 3/4 cents; steamer G. G. Hadley, corn to Buffalo at 1 3/4 cents; steamer John Otis for lumber, Menominee to Chicago, at \$1.12 1/2; schooner J. H. Mead for lumber, Cheboygan to Chicago at \$1.25.

## DETROIT.

*Special Correspondence to The Marine Record.*

The Yantic has been forced into Halifax harbor. She suffered some damage in a three-day contest with a heavy northwest gale. Messrs. Newberry and Lothrop, of the naval reserves, were on board. She is not expected here before the middle of November.

The steel steamer Cambria, owned by Senator Hanna, of Cleveland, bound down with 3,000 tons of iron ore, from Escanaba to Fairport, went ashore early on Wednesday morning, just above the Corsica shoal lightship, during the thick and smoky weather. The Cambria is lying easy on a sandy bottom, and there is no danger unless the sea makes up. The tugs Thompson and Brockway have gone to her assistance. The Cambria is valued at \$160,000. She and the cargo are fully insured. She registers 1,477 net tons and was built by the Globe Iron Works, of Cleveland, in 1887.

John S. Quinn, the diver will go to Fighting Island to start the work of raising the sunken pile driver which went down the other night.

There is a dangerous wreck five or six miles to the north and west of Seul Choix Point, Lake Michigan, according to the report of Capt. A. H. Shafer, of the barge Delta.

The heavy fogs down the lake and smoke at the Straits are being felt here. Very few boats have passed to-day and reports from northern ports indicate that it may be some time before there is a change.

Capt. Ed Horn, of the burned tug Wells, said that he would do nothing about getting her here Wednesday, but expected to be able to tow the hull from Amherstburg to Sandwich and save the machinery.

It is reported that the tug Fred Lee did some heavy work on the boats that went aground in the cut this week. She pulled off the Orion and later the Simon Langell. Neither was injured and only lightly on the mud.

The people up and around Menominee are hoping the Ann Arbor road will run its car ferries there this winter and are saying all sorts of nice things about the company and the ease with which the big boats could be run there twice a week or daily.

The Light-House Board furnishes light-keepers with a medicine chest and with a small library. Keepers send in requisitions to the supply clerk for what they need. One recently appointed keeper expressed his desire as follows: To the Supply Clerk.

Sir—you need not bring Madison Chest but bring me a few bottles of Madison, pepperment, 1; purigoric, 1; Loddin, 1; Colery Madison, 1; Jamaica ginger, 2 bottles, Caster Oil, 1; quinine Pills, 2 grain 2 Viles; Purgative Pills, 2 bxs. One bottle of glycerine for Plate glass & Six boxes of Silver Polish for glass; One New Testament & One Prayer Book

Never Mind the library

Verely Respfully,

Lt. Keeper.

The contract for the passenger steamer which is to take the place of the Greyhound has not been closed yet. The general opinion was that the Detroit Dry Dock Co. would get the contract, but it is said that John Craig, of Toledo, is now figuring on the new sidewheeler. He has been getting some figures on boilers.

There has been frequent groundings this week in the rivers, the Senator went ashore at Harsens Island, as also the Orion, the Simon Langell grounded on the Flats, while several other casualties of minor importance took place.

Car ferry barges will probably begin to run between Sandusky and this port next week. The barges are now all ready. Three tracks have been laid on them and their bows fitted to the slips to which they are to run. Each has a capacity of from nine to eleven cars. It will take about ten hours to make the run between the two ports, or a day for a round trip.

Capt. A. H. Shafer, of the barge Delta, reports that about five or six miles west one-half north from Seul Choix point, Lake Michigan, there is a very dangerous wreck, apparently a sunken schooner. Her masts, booms, gaffs, etc., all float over the wreck, held there by her rigging. Captains and pilots will do well to keep to the southward of their regular course up the south passage.

The lighter and derrick sunk near Mama Juda light, belong to Hingston & Wood, of Buffalo. Mr. Hingston arrived here and went to the scene of the accident. He placed the loss, if it should prove total, at \$18,000. The lighter was made from the old scow St. Clair.

Owing to the pressure of increased business all along the line, the directors of the Detroit & Cleveland Steam Navigation Company this week approved General Manager Carter's proposition to increase the sleeping accommodations of their two lower lake and two upper lake steamers. The total cost of the work, including the general overhauling to be given the passenger departments, will be from \$100,000 to \$105,000. All the work will be done in Detroit.

## BUFFALO.

*Special Correspondence to the Marine Record.*

Smoke has about stopped navigation here. Wednesday, Niagara river was closed and steamers are coming in half a day late. The steamer Mark Hopkins and tow were released from Point Abino and got in Tuesday night. The barge Young was pulled off without lightering. The Racine did not strand. The steamer Iron King, which went on in getting out of the Reading coal trestle is to be lightered.

A special to the Express from Ottawa, says: The Canadian authorities have for some time been preparing for the eventuality of a conference of sea experts at Washington, notwithstanding the success of their protest against Great Britain entering into negotiations with Russia and Japan as parties thereto. Commissioner McCune, who with Prof. Thompson, the British expert, spent the last two seasons on the Pribyloff Islands, is preparing a mass of evidence on the subject of seal life. It is said that the Canadian contention is easily supportable by this evidence. There is claimed to have been abundant proof collected on both the rookeries of St. Paul and St. George that pelagic sealers are not dependent for their catch on the nursing females in search of food for their young, and still more important, if true, is the report that the experts have ascertained other causes than starvation to account for the heavy mortality among the seal pups on the islands. It is not generally known that there were reasons other than those advanced in the diplomatic note of the general office for Britain's refusal to entertain the proposal of a conference including Russia and Japan. But the fact is that having once admitted the principle of an interest in the question by those nations, Canada could not back out of a general review of the entire methods of pelagic sealing, apart from the necessary revision under the Paris award.

The steamer Mark Hopkins, lumber laden, went ashore on Point Abino, nine miles up the north shore, on Tuesday. The tug Cascade and lighter were sent to her assistance. The weather was calm, but a thick smoke hung on the water, probably the worst for years.

For some days quantities of hardwood lumber have been coming ashore between Port Stanley and Port Burwell, and a spar with a good sail and rigging attached, has been picked up at Port Burwell. A water barrel has also been picked up at Port Bruce. The disaster is supposed to have happened during the storm October 11th.

## CLEVELAND.

*Special Correspondence to The Marine Record.*

Mr. C. B. Calder, superintendent of the Dry Dock Engine Works, visited this port on Wednesday in the interest of his firm. Mr. Calder is generally well liked and has a host of friends here who are pleased to meet him when opportunity offers.

The steamer Devereaux is still in the Ship Owner's dry dock, having received fourteen new plates, frames, and other work, the Roby has also been docked for calking and some new planking, etc. Repairs to the steel steamer Alva of the Bradley fleet have been quite extensive, forty-seven plates were taken off her in the Cleveland dry dock, where she has been since the 12th of this month. With new frames and other inside work the job has been a large one and as many as 250 men were employed at the work of repairing the large steamer. It is expected that she will get out of dry dock Thursday night or on Friday. The schooner Margaret Olwill will then go into dock.

The steamer Flora, that for a length of time run between Toledo and St. Ignace, and owned by Grummond, will be

sold at Port Stanley on October 28. For a few months this year she ran between Cleveland and Port Stanley.

The two revenue cutters building at the yard of the Globe Iron Works Co. will be launched early next month. The Globe Company will then have room for two boats of the largest class in addition to the large schooners that are now under way for the Mack and Corrigan lines. It is now certain that the Globe Iron Works Co. will be kept busy this winter and employ a large number of hands.

The Cleveland Ship Building Co. has commenced operations at the new yards in Lorain on the 450 foot steel steamer for the Wolvin syndicate of Duluth. The Lorainites would like this boat named Lorain City, being the first steel steamer to be built at that port, and if so named they will present her with a handsome set of flags. There is some delay in getting shipbuilding material from the mills as there seems to be a general rush to fill orders.

Although it has not been definitely settled, the new C. & B. steamer will probably be called Forest City. Manager T. F. Newman favors that name as well as other officers of the company.

Mr. H. M. Hanna, president of the Globe Iron Works Co., and brother to Senator Hanna, is seriously ill. In addition to being president of the Globe Iron Works Co. Mr. Hanna is owner of the yacht Camanche, and is associated with his brother, M. A. Hanna, in nearly all his enterprises except that of M. A. Hanna & Co. Mr. Hanna is fifty-six years of age, just three years younger than Mark, and eleven years older than his younger brother, L. C. Hanna.

Dense smoke from forest fires lies thick on Lake Erie, and vessels have great trouble getting into ports. Steamers lie in the lake and blow their whistles until tugs come out and pilot them in.

While towing the steamer J. H. Wade down the river from the rolling mill dock on Wednesday afternoon the tug J. L. Chamberlain struck on the bank making the turn near the Central viaduct and rolled over. She is on the bottom, but she is out of water pretty well forward and it will not be much of a job to raise her. The tug W. D. Cushing started to work on her a few hours after she keeled over.

In the case of the Mills Iron & Mining Co., against James Corrigan, Stevenson Burke and Price W. Kinney for \$15,000 for alleged damages for violation of contract, Judge Hammond of the United States Circuit Court, after hearing evidence of the plaintiff, ordered the jury to return a verdict for the defendants, declining to hear testimony of the defendants, deeming it unnecessary.

The owners of the barge Polynesia have begun demurrage proceedings with damages set at \$1,700 against the charterers of the vessel for failure to unload promptly at Fairport.

A similar suit has been instituted, damages \$480, in the case of the steamer Italia. The failure to unload was due to the prevailing car famine, with inadequate elevator facilities.

Thursday evening the twentieth annual ball of the Cleveland tug men will be held at Schweitzer's hall, on the corner of Pearl and Bridge streets.

Charles Jarrait has been added to the Cleveland life-saving crew. Capt. Motley has also selected another man, but he has not signified his acceptance.

A telegram says that Capt. Green, of the whaleback barge 129, was killed Tuesday afternoon at Ashland, Wis. The vessel was being loaded at the docks. Capt. Green was caught in the hoisting apparatus.

An extension of the east breakwater is being talked of, and if the improvement is carried out millions of dollars are to be expended by industrial concerns situated on the lake front.

The following men have made application for the two vacancies in the Cleveland life-saving service: Daniel K. Mulcahy, of Port Clinton, O.; Hugh J. Reiley, of Lakeside; Charles W. Jarrait, of Cleveland; and William C. Fischer, of Evans, N. Y. These are not actual vacancies, but an addition to the crew here.

## FLOTSAM, JETSAM AND LAGAN.

Every American man-of-war has in her outfit flags of 43 other nations which are used on occasions of visits to the ports of those countries and in exchanging salutes of vessels belonging to those nations. The etiquette in the navy is only surpassed by that of yachtsmen when on their annual cruise and under the control of the commodore.

The Duluth, Missabe & Northern ore dock at Duluth has broken all dock records by loading 56,000 tons of iron ore in thirty-six hours. Eight Bessemer boats loaded at one time.

The Welland canal is to be kept open on Sundays for the remainder of the season. The Dominion authorities are fast coming to modern principles and usages.

Capt. F. B. Hackett, manager of the Hackett tug line, Amherstburg, has furnished the following information: "The contractors report that they had twenty feet of water over the wreck of the steamer Grand Traverse on Oct. 3, 1897, and would continue the work of removal until there is not less than twenty-six feet over the wreck. The contractor expected to finish the work on or before the 18th of October."

The big steamer building at West Superior will probably be named after Alexander McDougall, general manager of the American Steel Barge Co. and inventor of the whalebacks.

The burned tug C. W. Wells was valued at \$11,000; insured for \$2,000.

Customs Collector Willcutts, at Duluth, refused on Tuesday to allow twenty-eight Italians to land from the steamer Monarch under the rulings of the alien contract labor law. The men were hired to work, and will be compelled to return under the alien contract labor law.



A dispatch from Menominee, Mich., says: "That the Ann Arbor railroad will make an attempt to run its boats this winter. It has always been contended that the two boats of the company, if run regularly one trip per day, could keep a channel open to the lake without much trouble. A channel once cut through the solid field of ice will not shift, and one night's freezing of the broken ice that remains in the course of the steamer could not possibly prevent the boat from passing through it with comparative ease. It was demonstrated two years ago that the boats could "walk through" the ice barrier, even when the bay was filled with windrows from seven to ten feet thick and the average field of ice was over two feet thick for over 35 miles from Menominee to open water at the Door. The No. 1 made the run from the lake to Menominee on her first trip in about 30 hours' running time. If No. 1 and No. 2 had continued to run every day thereafter, both craft would have been able to make at least eight miles an hour through the broken ice channel. The slip in the river can easily be kept open all winter by running a steam pipe into it from L. W. & V. S. Co.'s machine shop, and then the boats would not be compelled to grind up ice astern every time they landed. With two boats like the No. 1 and No. 2 there would be but little difficulty in navigating the bay via the canal all winter.

It is understood that there will be a boat put on the route between Monroe and Toledo next season with a much larger passenger capacity than either the Stirling or Douglas. It will be determined within a short time whether the boat will be a new one or one that has been in service. There has been talk of the Metropolis going on the route, but so far

He bought her Friday, got up steam on her the same day, and she busted all to pieces and sunk on a Friday." So Griffin employed another diver, who went down Friday morning.

The vessel reported on fire off Bar Point, Saturday night, proves to have been the Detroit tug C. W. Wells, which is a total loss. The crew lost everything except the clothes they had on.

#### FINES REMITTED.

A fine of \$530 levied upon the steamer Pentland, owned by W. L. Loutit of Grand Haven, has been remitted. The fine was assessed for alleged failure to have the official number of the vessel cut on her main beam and for permitting her fire buckets to become empty. It was shown that the number was not on the beam, and that the fire buckets leaked, without the knowledge of the vessel's master.

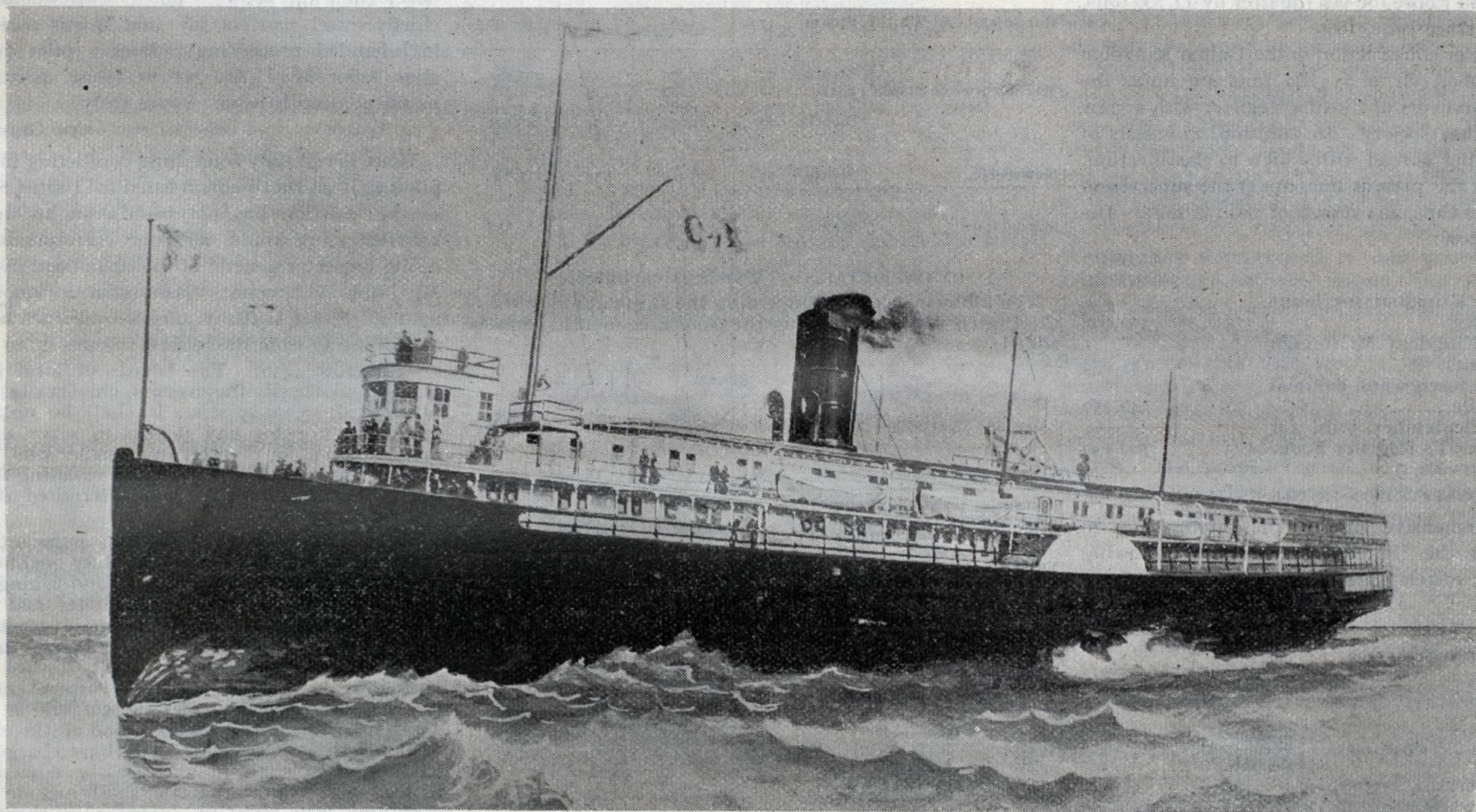
A fine of \$1,000 has been remitted in the case of the steamer Aztec, of the Marine Transit Co., on the ground that the vessel was short one axe, and the remainder were not marked with her name. The charge was regarded by the department as trivial.

A fine of \$1,100 levied upon the steamer Wilhelm, owned by C. E. Eastman of Saginaw, has been reduced to \$10. This fine was based upon inaccessibility of ship's papers, and the facts that certain boats and equipment were not

the wire, Agent Thomson notified Attorney Lynch, representing the steamer, that he would take the grain and pay all charges.

#### ANOTHER BRANCH HYDROGRAPHIC OFFICE.

A letter of inquiry was sent this week to P. M. Church, Sault Ste. Marie, Mich., from Lieut. G. H. Stafford, in charge of the branch hydrographic office at Cleveland, concerning a location for suitable quarters for a similar institution which it is proposed to establish at the "Soo." Lieut. Stafford stated that about 500 square feet of space would be required, and that the location preferred was in the upper story of some building convenient to the locks. The lieutenant has been assured that there will be no difficulty in securing suitable quarters, and that every assistance will be given the department in making the preliminary arrangements. Lieut. Stafford expects to visit the "Soo" at an early date for the purpose of looking over the ground. The location by the government of a branch hydrographic office at Sault Ste. Marie has been under consideration for some time, and it is probable that it will be established this winter. By reason of its location and the immense traffic through St. Mary's river, the "Soo" is the most important place on the chain of lakes for such an institution. It will be of incalculable benefit to vesselmen.



THE NEW C. & B. LINE BOAT.

The new steamer to be built by the C. & B. Line to trade between Cleveland and Buffalo, 324 feet in length, 81 feet over guards, 18 feet 10 inches deep. She will be the largest passenger steamer on the Lakes, if her builders keep up to specifications.

nothing has been done looking to her running there. There may be an arrangement by which the steamer Dove will run to Monroe Piers. It is claimed that with a new boiler she will be able to give good service. As she now is, she does not carry sufficient steam to bring out her best running qualities. Either the Metropolis or Dove carries a sufficient number of people to meet all requirements.

The little schooner N. C. West, that now trades to Toledo and only carries 300 tons of coal, has made money in her time, that is, when she first came, but the modern style of boat is of such immense proportions that the old timers are not in it with them. The canalers that carry twice as much coal as the West are no longer money makers. Years ago the canalers made a good many owners well off and prosperous.

The large steel ocean tug Wilmot, built for W. G. Wilmot, of New Orleans, by Wheeler & Co., left the yards of her builders on Monday, for her destination, in charge of Capt. Byron Armstrong. Four large wooden pontoons will be used in taking her through the locks. S. D. Gilkey and Fred Sweeney, of West Bay City, accompany the tug. Some engineers express the opinion that trouble may be experienced in passing the lower Canada canals.

The divers were sent for to go to Griffin's dredge, near Monroe, on Friday. "Not till Monday," said a veteran diver. "I never go to a wreck on Friday. The only steam pump I ever smashed I started out Friday. You remember the steamer Globe. She got up steam for the first time Friday, and went to the bottom on a Friday before the season was over. Then there was Steve Grummond's tug Field.

marked with the vessel's name. Evidence shows that the papers were simply locked in the captain's room while that officer was on shore, and the charges regarding the marking of boats, etc., are ignored.

#### DISPUTE RECEIVING CARGO.

A dispute arose this week over the delivery of the grain cargoes of the steamer George Spencer and the schooner B. L. Pennington. The boats arrived at Prescott, but their cargoes could not be delivered immediately, as the consignees for a time refused to accept the grain. The bills of lading called for the delivery of the grain for the Montreal Forwarding Co. and the Kingston & Montreal Forwarding Co. at the same point, the vessel to be advised at Port Colborne of her destination. At Port Dalhousie Capt. Powell was directed by the Kingston & Montreal Forwarding Co. to proceed to Prescott and by the Montreal Forwarding Co. to go to Kingston. The Spencer went to Prescott, where the Montreal Forwarding Co. refused to take the grain, as they said it had arrived too late for the Atlantic steamer. The grain was put in store at the elevator, and Capt. Powell notified the Montreal people that it was there for whom it concerned. After considerable discussion over

#### VESSELS CLASSED.

The American Shipmasters' Association classed this week in the "Record of American and Foreign Shipping" the following vessels: Three-masted schooners, Martha, Norombega and Penobscot, British three-masted schooner E. Merriam, and schooner St. Nicolai, also the barks Montreal, Columbia and screw steamer Soledad.

#### LAKE FREIGHTS.

There is a much stronger feeling in the freight market, and while iron ore does not go up to what it should do at this time other lines are firmer. Nothing better than last week's rates can be quoted on iron ore. In coal the Duluth rate is now firm at 30 cents. Lake Michigan, say Milwaukee, at 40, 45 and 50 cents. The Chicago grain rate has not improved and 1¼ cents is still the ruling figure on corn to Buffalo, 4½ cents being paid to Kingston and an earlier charter at 4 cents.

Shippers are making quite a fight on coal rates but they are bound to come up and 60 cents should be paid within the next few days, although large cargoes of 3,000 to 5,000 tons are likely to hold rates down, yet there is no question but as the season draws to a close coal freights will improve and this in a great measure because modern built steamers can carry their own water ballast, and formerly the wooden boats had to take coal for little or nothing in the fall months.



# **LLOYD'S REGISTER SHIP BUILDING RETURNS, FOR THE QUARTER ENDED SEP- TEMBER 30, 1897.**

## **VESSELS UNDER CONSTRUCTION.**

From the returns compiled by *Lloyd's Register of Shipping*, it appears that, excluding warships, there were 455 vessels of 884,336 tons gross under construction in the United Kingdom at the close of the quarter ended September 30, 1897. The particulars of the vessels in question are as follows, similar details being given for the corresponding period in 1896 for the purpose of comparison:

DESCRIPTION.	September 30, 1897.		September 30, 1896.	
	NO.	GROSS TONNAGE.	NO.	GROSS TONNAGE.
<b>STEAM.</b>				
Steel.....	364	868,495	283	628,448
Iron.....	54	8,721	28	4,047
Wood and Composite..	2	171	2	737
<b>Total.....</b>	<b>420</b>	<b>877,387</b>	<b>313</b>	<b>633,232</b>
<b>SAIL.</b>				
Steel.....	13	4,888	20	23,720
Iron.....	1	226	1	226
Wood and Composite..	21	1,835	21	2,463
<b>Total.....</b>	<b>35</b>	<b>6,949</b>	<b>42</b>	<b>26,409</b>
<b>Total Steam and Sail.</b>	<b>455</b>	<b>884,336</b>	<b>355</b>	<b>659,641</b>

The returns exceed those for last quarter by 12,700 tons, and are the highest since June, 1889.

Of the vessels under construction in the United Kingdom at the end of September, 381, of 733,882 tons are under the supervision of the surveyors of Lloyd's Register with a view to classification by that society. In addition, 22 vessels of 46,252 tons are building abroad with a view to classification. The total building at the present time under the supervision of Lloyd's Register is thus, 403 vessels of 780,134 tons. Details of this total follow:

	NO.	GROSS TONNAGE.
Building in United Kingdom for home account, for sale, &c.....	334	592,028
Building in United Kingdom for foreign and colonial account.....	47	141,854
Building abroad for foreign and colonial account, and for sale.....	22	46,252
<b>Total building on September 30th, for classification in Lloyd's Register Book,</b>	<b>403</b>	<b>780,134</b>

## **WARSHIPS UNDER CONSTRUCTION IN THE UNITED KINGDOM.**

To afford a comprehensive view of the shipbuilding in progress throughout the United Kingdom, the following statement of the war vessels which are at present under con-

struction has been compiled. For this statement, it has been assumed that a vessel may be regarded as "under construction" from the commencement of the laying of her keel to the time when she is ready for her steam trials. Of course, when this latter stage is reached, the guns have usually still to be placed on board, and the vessel to be fitted out, before she is ready to be commissioned; but she is, nevertheless, structurally complete.

## **BRITISH SHIPBUILDING. (Warships Excluded.)**

The following table gives the total figures for vessels under construction in the principal shipbuilding districts of the country, as compared with those for the same period last year. Each district includes places in the neighborhood of the port after which it is named:

District.	Description.	September 30, 1897.		September 30, 1896.	
		No.	Gross Tonnage.	No.	Gross Tonnage.
Belfast.....	Steam	21	158,602	22	124,851
Barrow, Mayport & Workington.	Steam	4	2,760	7	7,750
	Sail...	3	400	3	3,740
	<b>Total.</b>	<b>7</b>	<b>3,160</b>	<b>10</b>	<b>11,490</b>
Glasgow.....	Steam	92	166,395	81	158,095
	Sail...	1	1,630	1	1,630
	<b>Total.</b>	<b>93</b>	<b>168,025</b>	<b>82</b>	<b>159,725</b>
Greenock.....	Steam	43	88,906	22	37,134
	Sail...	7	4,038	10	16,365
	<b>Total.</b>	<b>50</b>	<b>92,944</b>	<b>32</b>	<b>53,499</b>
Hartlepool and Whitby, Steam		17	56,985	10	30,090
Middlesbro' & Stockton.	Steam	27	81,473	25	43,884
	Sail...	2	159	5	1,710
	<b>Total.</b>	<b>29</b>	<b>81,632</b>	<b>30</b>	<b>45,594</b>
Newcastle.....	Steam	70	130,449	53	113,626
Sunderland.....	Steam	46	145,436	34	81,639

## **OTHER DETAILS. (Warships excluded.)**

The following details concerning the shipbuilding work of the United Kingdom during the past three months, may be added:

DURING QUARTER ENDED September 30, 1897.	STEAM.		SAIL.	
	No.	Gross Tonnage.	No.	Gross Tonnage.
Vessels Commenced.....	158	234,216	11	1,693
Vessels previously commenced, but on which no further progress has been made	3	1,698	5	489
<b>Vessels Launched.....</b>	<b>116</b>	<b>220,773</b>	<b>7</b>	<b>2,531</b>

NATIONALITY.	DESCRIPTION.	AT ROYAL DOCKYARDS.			AT PRIVATE YARDS.			TOTAL.	
		YARD.	NO.	Displacement.	YARD.	NO.	Displacement.	NO.	Displacement.
BRITISH.	1st Class Battleship.	Chatham.....	1	12,950	Barrow.....	1	12,950	6	77,700
		Portsmouth.....	1	12,950	Birkenhead.....	1	12,950		
		Devonport.....	1	12,950	Blackwall.....	1	12,950		
	1st Class Protected Cruisers.	Pembroke.....	2	22,000	Barrow.....	2	22,000	8	88,000
					Clydebank.....	2	22,000		
	2nd Class Protected Cruisers.	Chatham.....	1	5,800	Govan.....	2	22,000	5	28,400
		Portsmouth.....	1	5,800	Glasgow.....	1	5,600		
	3rd Class Protected Cruisers.				Govan.....	2	11,200	7	14,945
		Sheerness.....	2	4,270	Elswick.....	1	2,135		
	Gunboats.				Hull.....	2	4,270	2	1,400
					Jarrow.....	2	4,270		
FOREIGN OR NOT STATED.	Torpedo Boat Destroyers.				Glasgow.....	2	1,400	25	8,300
					Barrow.....	(2)			
	Torpedo Boats.				Birkenhead.....	(1)		13	4,340
					Chiswick.....	(5)			
	Other Vessels.				Clydebank.....	(5)		6	750
					Govan.....	(3)			
	Total.		9	76,720	Hebburn.....	(2)		2	1,400
					Hull.....	(2)			
	Armoured Vessels.				Jarrow.....	(3)		34	99,867
					Sunderland.....	(2)			
BRITISH AND FOREIGN.	Protected Cruisers.				Blackwall.....	1	14,850	7	64,880
					Clydebank.....	1	15,200		
	Torpedo Boat Destroyers.				Elswick.....	3	27,950	6	24,437
					Low Walker.....	2	6,880		
	Torpedo Boats.				Elswick.....	3	11,787	13	4,340
					Low Walker.....	3	12,650		
	Other Vessels.				Chiswick.....	5	1,600	6	750
					Clydebank.....	4	1,540		
	Total.		9	76,720	Poplar.....	4	1,200	2	5,460
					Birkenhead.....	1	2,460		
	Total.		9	76,720	Elswick.....	1	3,000	87	318,612

struction has been compiled. For this statement, it has been assumed that a vessel may be regarded as "under construction" from the commencement of the laying of her keel

## **SCREW THRUST AND RESISTANCE.**

J. H. Allan in *Dixie* calls attention to the fact that is not too widely known that the thrust of a screw at the stern of a

vessel is widely different from the resistance of a vessel itself. It is asserted that if ships could be pulled through the water instead of being pushed by the propellers now in use, an average saving of 40 per cent. in engine power would be made. The reason is that the screw, and the paddle also for that matter, pushes the water away from the vessel, thus lessening the pressure at the stern and consequently adding just that amount to the unbalanced pressure at the bow. In fact, it has been found by experiment that the thrust of a propeller exceeds the pull of a tow rope by about 40 per cent. when the same speeds are obtained.

## **RELATIVE TO PILOTAGE.**

ST. CATHERINES, ONT.

To the Editor of *The Marine Record*:

Can a person with a Canadian full branch pilot's certificate from Montreal, Duluth and Chicago, and who is a Canadian citizen, take or pilot a United States vessel from the Welland canal to Ogdensburg, or, in other words, from a Canadian to an American or United States port? Or, in the event of the officers of the boat not having Lake Ontario or St. Lawrence river licenses can they engage a Canadian pilot to carry the vessel to her destination, a portion of which is through Dominion waters?

One steamer has already been fined for carrying a Canadian pilot to Ogdensburg and although I have been engaged in this work for nearly a score of years the point has never come up before. Those with whom I have talked, chiefly vessel masters, say that this is a very unusual and high-handed proceeding. Does a pilot come under the alien labor law? Are we to refuse assistance to vessels practically in distress? Yours truly,

AN OLD SUBSCRIBER.

There is certainly something conflicting in the practice of piloting from the Welland canal to United States ports, and as the question has not been brought up before to our knowledge, we would refer our correspondent to the supervising inspector general of the steamboat inspection service, Mr. James A. Dumont, Washington, for more light on the matter. So far as the inquiry is concerned we can but quote the following from the revised statutes up to date:

"SECTION 4438. The boards of local inspectors shall license and classify the masters, chief mates, engineers and pilots of all steam vessels. It shall be unlawful to employ any person, or for any person to serve as a master, chief mate, engineer or pilot on any steamer who is not licensed by the inspectors; and any one violating this section shall be liable to a penalty of one hundred dollars for each offense."

"SEC. 4131. Vessels registered pursuant to law and no others, except such as shall be duly qualified according to law for carrying on the coasting and fishing trade, shall be deemed vessels of the United States and entitled to the benefits and privileges appertaining to such vessels, but no such vessel shall enjoy such benefits and privileges longer than it shall continue to be wholly owned by a citizen or citizens of the United States, or a corporation created under the laws of any of the states thereof, and be commanded by a citizen of the United States. And all the officers of vessels of the United States who shall have charge of a watch, including pilots, shall in all cases be citizens of the United States. The word 'officers' shall include the chief engineer and each assistant engineer in charge of a watch on vessels propelled wholly or in part by steam, and after the first day in January, eighteen hundred and ninety-seven, no person shall be qualified to hold a license as a commander or watch officer of a merchant vessel of the United States who is not a native-born citizen, or whose naturalization as a citizen shall not have been fully completed."

From the foregoing it would appear that Canadians may not pilot an American vessel and therefore the fine imposed by the collector of customs at Ogdensburg is in conformity with the sections quoted and on which no doubt he based his authority for mulcting the vessel or her master and owners.—[ED.]

## **WHAT ABOUT THE DAVIDSON?**

FRANKSVILLE, WIS.

To the Editor of *The Marine Record*:

In a recent issue *THE MARINE RECORD* mentioned some particulars about the steamer James Davidson. Now I do not mean or want to know about the Thomas Davidson, but would like to learn something about the James Davidson, if you will have the kindness to furnish me with her record.

Yours truly,

R. H. R.

The steamer James Davidson was built at Salzburg, Mich., in 1874; gross tonnage, 1,456; net, 1,202, and hailed from St. Clair. She was lost Oct. 4, 1883, off Thunder Bay Island, while bound to Chicago with coal, towing the schooner Middlesex. The crew were all saved by the life-saving service. Estimated value of steamer, \$65,000.—[ED.]



**ADDRESS OF JUDGE TAYLOR BEFORE THE  
WATERWAYS CONVENTION HELD AT  
DAVENPORT, IA., OCT. 5TH  
AND 6TH, 1897.**

I am truly glad that I am here and am glad to be permitted to partake in such a convention. I feel that I am in the house of my friends and am rich, for what riches count for more than friends. You naturally expect from me something in connection with an explanatory review of the work under the supervision of the United States government, which is being done for the great waterway, the Mississippi river, and something of the plans for the future work. Time is short and I will not take it up in introductory remarks and will cut my preface short. It gives me pleasure to speak to this convention with your present president wielding the gavel. Gen. Catchings and I have been co-laborers in a common cause and I wish to assure you of what you must already be cognizant, that man did more in the work of improving the Mississippi river may be divided in man is more credit due for the work which has been done. (Applause.)

The work of the improvement of the Mississippi river may be divided into three departments. The survey of the river from the head to the mouth; the improvement of the channel and third the protection of the rich lands which lay along its banks from overflow. I presume few of you are aware of the fact that in traveling from St. Paul to the Gulf of Mexico there is scarcely a moment when the traveler is not within a mile or two of some of the work that is being done. The first of the departments that I wish to speak of, the survey, would be an interesting subject for a lecture, though not of so much importance to this convention. The government engineer corps have traveled over every foot of the ground from one end of the river to the other and have left records of their work; records which will stand until the day when Gabriel shall blow his trumpet, and from which a map of the entire river could be drawn at that day, as well as at the present time. As a rule people do not take an interest in these affairs and as an instance, when we went into the city of St. Paul with our corps of surveyors, we created quite a stir there. They did not seem to know that we were in existence up to that time. As a rule the importance of the work and understanding of its objects are not general matters of knowledge. We have had numerous examples of this from time to time, and the result of these examples were not always pleasant nor fully appreciated by us at the time. For instance, the fall before we had been upon a certain tract of land and had established an important corner and sunk a stone there. It was in the field and we set it deep. When we returned in the spring we commenced looking for the corner. We could not find it. Finally, the farmer who owned the tract came out and asked us if we were looking "for a stone."

"Yes, we are."

"I'll find it for you easy," came the reply.

He started for his barn some distance away. We asked him where he was going.

"Why, to the barn, of course. I seed you plantin' that stone thar, las' fall, and I said to the boys, said I, there must be somethin' valuable about that stone, and 'gin I plow that field next spring they will never be able to find it, so I had it dug up and taken to the barn."

**CHANNEL IMPROVEMENTS.**

"The other branches of the work are of more importance and I can not take up your time in talking about the surveys. The question of the most vital interest is the matter of the improvement of the channel for navigation. In telling you of what has been done and what is being done, I will tell you of a great disappointment—the dawning and the evening, and the dawning of another day. The Mississippi river, as we may call it a male stream, did a very foolish thing when it was wedded to that slouchy, besmirched and bedraggled lady, the Missouri. From that time to this it has never been permitted to lie upon a clean bed. (Laughter.) Sixteen hundred miles it carries the mud and slime and slush from this mate on to the Gulf and there it deposits it. This is but another way of saying that a bar was formed at the mouth of the Mississippi river which well nigh shut out the traffic. At the greatest depth there was not sixteen feet of water, and whole fleets lay at the door to the interior awaiting some favorable moment when the elements would force the water up into the mouth of the river to a sufficient depth to allow them to enter. From the bar on to New Orleans there was a depth of water varying from 100 to 150 feet. This bar was deepened and the work was due to that able engineer whose name will

ever be linked with that of the Mississippi river and the commerce of the United States, James B. Eads. (Applause.)

"When the world learned what we had done they said 'what fools we have been,' the process was so simple. He formed out across that bar certain walls of willow matings called jetties and across the other of the five mouths of the river he placed others so as to confine the volume of water to this one channel. In time this was washed out to a depth sufficient to permit the passage of the boats. There were from 25 to 30 feet of water there. This work needs now to be larger. The ships are larger and the wants and needs of it extend across the bar clear up here to Davenport. We are all interested in keeping the outside gate open."

**COMMISSION FORMED.**

"One of the fruits of this work was the formation of the commission to take charge of the Mississippi river improvement. It was said that if that bar could be removed, other bars could be removed and why cannot the jetties plan be applied to the entire river? It was Mr. Eads idea that ample channel could be provided permanently by this method—by confining the channel and scouring out the bed of the river by the force of its own current. That there should be applied work to the curving banks which would hold them and keep them from caving in. I cannot explain to you the power and the fury of the attacks of the river upon its own banks. Here on the map at the rear of the stage you have a picture of the entire valley of the Mississippi."

Here the speaker explained the map and pointed out the formation and fills which had been accomplished through no other agency than the current of the river, which extends to a point above Cairo. Continuing, he said:

"Should you apply to the Mississippi river for a reason for his attacks upon the soil which skirts its banks, he would answer: 'I put it there and I will do as I please.' If the banks of the river could be protected by revetements, then it could be confined to the channel, and the end could be accomplished. These revetements are made of willow matings from a foot to sixteen inches in thickness and a thousand feet in length by two or three hundred feet in width. They are placed along the banks and the lower edge held down with stone, while above the low water line, the bank is trimmed down and riprapped. The work was begun and the utmost skill was used. The development of the work developed new troubles to be encountered and met time and again. Step by step and step and step, the developments were made and it was finally found that the bank could be protected, but the cost. The first work cost but \$12 a lineal foot and afterwards it was found that in order to make the work permanent the cost was increased to \$30 per foot. In order to make it permanent, the work must begin above. We found that the cost of constructing this work from Cairo to Vicksburg would, at that rate, cost \$60,000,000, and that to maintain it would cost ten per cent. of that amount each year, or \$6,000,000, and this was not all. It would take forty years to accomplish it. Something was due to the commerce of the river for the present generation. We could not put it off longer, and so we cast about for some other method."

Here the speaker told of the invention of the centrifugal dredge pump, by which 4,000 cubic yards of sand, or in other words an acre of ground forty feet in depth, could be removed in an hour. This was now in use. It had been tested, but the test was not final yet, until it could be ascertained how permanent the work would be. Four of these dredges had been built and the water over a number of the worst bars of the lower river had been removed, giving a depth of from ten to twelve feet of water at low water mark. He explained the workings of the dredge and wound up by saying:

"I told you I would tell you of a great disappointment—the dawning and evening, and the dawning of another and brighter day, we hope it has come."

**THE LEVEES.**

The speaker then turned his attention to the levees of the lower river and the confining of the current in overflow. The address was very interesting from beginning to end, and was most highly appreciated.

**THE SCREW PROPELLER SIXTY-TWO YEARS OLD.**

A chapter from the early history of steam navigation, concerning the introduction and practical application of the screw propeller, is published in *The Engineer*, London, from which we make a brief abstract. It may be remarked here that the screw propeller as used by Mr. Smith, one of

the earliest inventors of it, is still being re-invented by amateurs all over the world:

"The attention of Mr. F. P. Smith, a farmer at Hendon, in Middlesex, Eng., was first directed to the subject of screw propulsion in 1835, he having constructed a model boat fitted with a wooden screw, and tried it on a pond on his farm at Hendon. The results obtained were so satisfactory that Mr. Smith and his friends constructed a boat of six tons burden, with engines of about 6 h. p., driving a wooden screw of two convolutions. This boat was in operation on the Paddington canal, and continued to ply there until September, 1837.

"In one of its trips the propeller fouled some floating object, breaking away about half its length, when it was found that the speed of the boat increased considerably, and realized a better performance than before. A new screw with only a single turn was subsequently fitted, from which very satisfactory results were obtained.

"These experimental trials, have, however, been carried out in smooth water. Mr. Smith took his boat to sea. At the end of September, 1837, he proceeded with it from Blackwall to Gravesend; and from thence went on to Ramsgate, and subsequently to Dover. From Dover he proceeded to Folkestone, and from there to Hythe; the distance between these two last places—five miles—being covered in three-quarters of an hour. The boat afterwards returned to London in weather so boisterous and stormy that it was deemed unsafe for a small boat to put to sea. Two trials of this little vessel were then made under Admiralty inspection, and were considered highly satisfactory.

"Before deciding on the adoption of the new propeller, however, it was considered desirable that a trial should be made with a vessel of at least 200 tons. Mr. Smith and his friends thereupon concluded to build such a vessel. She was laid down in Mr. Wynn's yard in Millwall, in the spring of 1838, and launched in October of the same year. We give a view of the vessel at sea and a section of the ship showing the arrangement of her propelling machinery. The dimensions of this vessel, the *Archimedes*, were: Length between perpendiculars, 107 ft.; over all, 125 ft.; beam, 22 ft. 6 in.; depth of hold, 13 ft. The engine consisted of two cylinders, each three ft. diameter, and 3 ft. piston stroke, placed on the middle line of the ship, the gearing or wheel-work for speeding up the propeller shaft being two toothed wheels and two pinions, as shown in sketch. The propeller shaft was attached to the lowest pinion shaft, which passed under the cabin floor and through a stuffing-box in the inner sternpost to the propeller. The propeller, which was 5 ft. diameter and 8 ft. long, was made of plates of iron secured to iron arms keyed to the propeller shaft, which made five and a half revolutions for one of the engines. The boiler was low-pressure, made to suit the shape of the vessel. The weight of the whole machinery, boiler, etc., was 64 tons 8 cwt., and when in place in the vessel gave her an immersed section of 140 square feet. Her engines, propeller, etc., were made and fitted by J. and G. Rennie.

"The *Archimedes*, after several highly successful trials on the Thames in the spring, on the 15th of May, 1839, proceeded to sea for a run to Portsmouth, which place she reached from Gravesend against wind and tide in 20 hours. On returning to London, where a new boiler was fitted to her, she was at the request of the Dutch government sent to the Texel, but on the way out broke the crank of one of her engines. When returned she underwent a complete repair, her screw being altered by dividing it into two half turns—instead of one whole one—which placed on opposite sides of the shaft, made it a double-threaded screw of half a convolution.

"In the spring of 1840 the renovated vessel, after undergoing some highly successful trials under Admiralty inspection at Dover, at their conclusion made the circumnavigation of Great Britain, visiting by the way every important seaport, and thus affording all who were interested in shipping an opportunity of making themselves acquainted with the new mode of navigation.

"The vessel sailed 1,772 miles in 210 hours, or an average of 8½ miles per hour in all weathers. She answered her helm admirably and turned in little more than her own length. She arrived at Blackwall on July 7th, 1840, at 8 p. m., from Hull in 29 hours, it blowing a gale dead ahead with a heavy sea for 24 hours. A much larger and more powerful paddle steamer—the *Monarch*—left Hull 1¼ hours later than the *Archimedes* and took 34 hours on the passage under the same conditions of wind and sea.

(Continued on page 10.)





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CLEVELAND, O., OCTOBER 21, 1897.

In describing the general equipment of the two new tow-barges recently contracted for by the Bessemer Steamship Co., and to be built by F. W. Wheeler & Co., West Bay City, several of our exchanges quoting from a Cleveland daily say they will have two 6,000 ton anchors and two 4,000 ton anchors aft. Well! if this could be understood as it appears or reads the consorts would be mighty big carriers to take along their own ground tackle. What is meant is that they will have anchors the weight of which is graded for a 6,000 ton vessel and the anchors carried aft, such as is allowed for a 4,000 ton craft. The size of chains and weight of anchors are marked up according as the size of the vessel's increase.

THE United States requires a navy to protect its rights in foreign waters. There has been much talk about the new navy, but there is actually very little of a national showing as yet, although a few vessels are being built. A strong navy gives excellent moral support to argument with a turbulent neighbor. This country has a good example set it by Japan which is making most remarkable progress in its naval development, and which at her present rate of building war vessels will, if the United States shows no greater activity than now witnessed, undoubtedly dominate the Pacific Ocean in the near future. This would place our country in a somewhat serious situation with regard to its probable accession of new territory in that part of the world.

## ANOTHER BRANCH HYDROGRAPHIC OFFICE.

Buffalo is to have a branch hydrographic office which will be in full working order by the middle of November or the first of December at the latest.

The lack of the facilities afforded by such an office has been seriously felt by those whose business took them into the lake trade, and now that the establishment is assured there is great satisfaction expressed by the shippers, consignees and the captains of the lake trade. For many years it has been a source of great surprise that Buffalo has had no hydrographic office. During the winter months great numbers of lake craft make their home there, and their skippers during that period of enforced idleness, have found in order to get any adequate information of new soundings, new channels, new buoys and channel marks, they must send to Cleveland for the materials which should be found at all the lake ports.

But this will be changed this winter, and the change will not be brought about because Buffalo has taken any particularly active interest in that which ought to be one of her chief considerations, and the government has decided to

open up the facilities for handling the information which is being collected daily for the helping toward the safety of lake transportation. The department will be under the charge of Ensign Jewell, now in service, and detailed to the United States steamer Michigan. The offices will be on the thirteenth floor of the Guaranty Building, and in connection with the signals already displayed, it is the purpose of the government to have a time ball on the pole on top of the building which will drop at 12 o'clock each day.

The plans for the establishment of the office have been made by Lieutenant G. H. Stafford, of the United States Navy, and they have been forwarded, and a great deal of help has been given by Col. Moulton, president of the Guaranty Building Company, Buffalo.

So it comes about that Buffalo is finally to take the place which she should have had years ago—the seat of one of the government's most important offices. There has been one at Cleveland for many years, and more than once it has been a question of some consideration why Buffalo, the terminus of the lake trade, should have been left without this most important office.

Ensign Jewell is a son of Commander Jewell, of the light-house service. He will assume his duties within the coming month, and will probably superintend the putting in of the furniture of the offices in the big Guaranty Building.

## LAKE SUPERIOR INDUSTRIES.

With the big consuming interests picking up mines and providing themselves with fleets of lake vessels to transport the ore, the independent mines and vessel interests will soon be driven to work in conjunction to hold a share of the iron and steel business. Since Carnegie and other of the large consumers of ore have effected combinations by which they will get their ore at the cost of production and transportation, they are now prepared to force competitors who buy their ores in the general market, and charter vessels to carry it, out of business, for they can make prices that producers less favorably circumstanced cannot meet.

The Marquette Mining Journal says: "It seems to us that the larger mining companies which are now producing ore solely for the market will have to meet the situation created by the big producers of iron and steel in the east by providing themselves with plants, just as their former customers have provided themselves with mines. That they can do this is not to be questioned, and in doing it they will have this advantage over the furnace and mill owners who have been acquiring control of mines so as to get their ore at first cost, that they can locate the plant with reference to existing and prospective market requirements, hence where they will be more favorably located for the purpose of supplying the region where the greatest demand is certain to be found for the next fifty years or more.

"The market of the future lies in the region lying between the head of Lake Superior and Puget Sound, and southwest from the head of the lake. Plants located at points in Pennsylvania and Ohio will labor under a great disadvantage in competing with those nearer both the fields of ore supply and that market, no matter how cheaply they may get their ores, provided the more favorably located plants are also operated in conjunction with ore producers, and vessel lines which will bring them the fuel they need at a low cost for haulage.

"We are strong in the conviction that the day is not far distant when a very large proportion of the Lake Superior ores will be smelted and worked into finished forms right on the shores of this lake. That time would come much less quickly were it not for the effort eastern furnace and mill owners are now putting forth to place themselves in a position of independence of the iron mining interest as a distinct branch of the trade, for the combines they are forming will inevitably force the independent mine and vessel owners to form counter combinations in order that they continue to do business. The mines of this range are better prepared, perhaps, than many others in the Lake Superior region to take the initiative in the movement to protect themselves from the damaging effect on their interests of the combines effected during the coming year by the large eastern producers of iron and steel, and it will be very fortunate for this region if it turns out that in seeking to shelve our independent mines as producers Carnegie and the others who have been acquiring control of mines up here with that aim will force them to measures of self-preservation that will ultimately give the eastern iron and steel kings the sharpest and most hurtful competition in the general market they have yet had to meet."

## TO ACQUIRE A MERCHANT MARINE.

There are many plans proposed for the purpose of building up a United States merchant marine and the New York Maritime Register has the following to say in the matter: "The shipping question is about to be approached in a way that gives encouragement that some definite policy in regard to the rehabilitation of the merchant marine of this country will be adopted by Congress at its next session. There exists a great difference of opinion as to the best means for reviving our shipping. This has been concentrated upon the leading questions, as to whether allowing free registry for foreign built vessels or the granting of subsidies would be the best course to follow. These propositions are so diametrically opposed to each other that no compromise in the matter seems possible. For this reason anything approaching a definite policy in regard to our shipping has been greatly delayed.

There is a growing sentiment among our people that this state of affairs should not be allowed to continue, and that something should be done by Congress with as little delay as possible to help this country regain its share of the shipping trade. It is because of this that a commission will soon meet at Washington to try, if possible, to unite upon some scheme for the rehabilitation of our merchant marine for presentation to Congress through a committee appointed by that body for this purpose. The members of the commission number about twenty of the leading shipowners, shipbuilders and admiralty lawyers of this country. They came together at the intimation of the President and it may be presumed that any reasonable project that may be put forth by them in relation to the revival of the shipping trade, will be strongly supported by the administration.

The commission represents all shades of opinion on the shipping question, and considerable controversy may be expected to take place before an agreement will be arrived at. What plan may finally be decided upon is a matter of pure speculation. It appears, however, that a free registry for foreign built ships will have no part in it. The shipbuilders are unalterably opposed to any measure of this kind, and the ultra-protection sentiment of the administration would be against it. The matter of free ships then may at the start be eliminated from this question of how to revive our shipping. A discriminating duty on foreign imports, such as incorporated in the present tariff, does not call forth any particular enthusiasm for several very important reasons, and it is hardly probable that it will be sought by amendment or otherwise to make it applicable to ocean shipping. Setting this also aside, it would appear that the question of rehabilitating our merchant marine is practically in the hands of those, who in one form or another, favor the granting of bounties as a means to that end. Whether the extending of government aid, in the shape of subsidies to shipping, may be considered the right course to follow in the effort to build up our merchant navy or not, it is a most encouraging thing that the sentiment of this country and of the administration are agreed upon the necessity of doing something immediately to help revive our shipping. It is a good omen for the future of American shipping, that for the first time in many years it is recognized as a matter of the very first importance to this country and one requiring the immediate and earnest attention of Congress. Although the opinions of the members of the coming commission may be varied and conflicting, yet it is to be hoped that all personal bias will be put aside and earnest endeavor be made by it to unite upon a thoroughly practical plan and one, if possible, that would occasion the least friction in its passage through Congress, in order that its enactment may be delayed as little as possible.

## THE OLD U. S. S. YANTIC.

The United States corvette Yantic, which has been fitted out at the Charleston Navy Yard for the Michigan Naval Brigade, has left Detroit. She will make a straight run to the St. Lawrence, where she will be turned over to the men of the brigade, who will take her through the canals to Detroit, where she will be used as a practice ship.

Her batteries have been taken out, but otherwise she is in as good shape as when she was in commission.

The Canadian press have been protesting against the Yantic going up the St. Lawrence, claiming that her presence on the Great Lakes would be a violation of the treaty with Great Britain, relating to the maintenance of war vessels on these waters. But it can be said that the Yantic is no longer a war vessel. She is out of commission and while owned by the navy department, or the country, is now simply a practice ship for the naval reserve of Michigan.



## LAKE SUPERIOR IRON ORE TRADE.

A special to the New York Journal of Commerce from a Cleveland correspondent thus reviews the iron trade and transportation:

"The iron ores of Lake Superior first became a tangible element in lake commerce about thirty years ago. At that time the annual shipments amounted to nearly 500,000 tons. they came from two ports, Escanaba on Lake Michigan and Marquette on Lake Superior, and the average cost of carrying a ton of ore from Escanaba to a Lake Erie port was \$4.25. By 1870 the cost of the same service was reduced to \$2.50; between 1875 and 1885 the contract rate varied from a maximum of \$1.85 to a minimum of 90 cents. The Marquette rate had always been from 30 cents to 40 cents per ton higher than that from Escanaba. With the discovery of the newer ranges near the head of Lake Superior, Ashland and other ports became important shipping centers and their greater distance called for freight rates as much above those from Marquette as the latter had been above those from Escanaba. In 1885 the rates on ore from ports at the head of Lake Superior averaged \$1.20 per ton, and in 1887 they were as high as \$2.20. That is to say, it is ten years ago since the cost of bringing the ore from the Lake Superior to the Lake Erie port was within a few cents a ton of being equal to the average price which the ore had commanded at Cleveland and Ashtabula during the present year.

"Here is the standard by which we may measure the extent of the revolution which has taken place within ten years, not only in the cost of lake transportation, but in all that great industry whose foundation is the iron ore of the Lake Superior mines. Very little of the product of these mines is shipped to the furnaces by all-rail transportation. The facilities for transportation afforded by the Great Lakes furnish, therefore, the key to the mining situation and to the course of development of the iron industry dependent on it. Up to date comparatively recent Pittsburgh and the Mahoning Valley commanded a considerable supply of Bessemer ores in their immediate vicinity. For years, however, the lake ores have become by far the most important factor in steel production, and two-thirds of the entire ore consumption of the country is drawn from the mines of Lake Superior. Bearing in mind that one and two-thirds tons of ore go to the making of a ton of pig iron, it will be perceived that the facilities for lake transportation have a very important bearing on the cost of producing Bessemer pig iron and a not unimportant bearing on the cost of the steel. Taking the average of a series of years, it will be found that the depths of the lake channels have had a controlling influence on the rates of freight, for with every foot added to the depth of these channels there has been a new advance in the tonnage of the lake carriers. In point of fact the growth in the carrying capacity of the lake steamers has advanced at a more rapid rate than the depths of the channels. The original standard for the draft of the larger vessels was the depth of water on St. Clair Flats. Previous to 1858 this was only about 9½ feet, by way of the North Pass. Improvements at the South Pass, completed at about that time gave a depth of nearly twelve feet and shortened the distance. In 1871 the St. Clair Flats canal, with a depth of 13 feet, became available. This was increased in 1874 to 16 feet. Up to 1881 the depth of water in the St. Mary's Falls canal, at the entrance to Lake Superior, was 12 feet, but by the enlargement completed in that year it was increased to 16 feet. In all the channels the depth has since that time been increased to 20 feet, and the ore-carriers coming of Lake Superior are now able to steam from port under a draft from 17 to 17.6 feet. Had the depth of the lake harbors been increased to correspond to that of the lake channels a still greater draft might be safely risked.

"The effect of all this improvement on the size of the vessels has, of course, been very great. The effect on their carrying capacity is still greater; for while a vessel may not be able to carry over 3,000 tons when she cannot safely be loaded below 14 feet, she may carry 5,500 tons if the channel admits a draft of 18 feet; the gain in the channel may be only 28 per cent., while the gain in freight capacity may be 83 per cent. In point of fact the most highly developed type of lake steamer carries to-day 5,000 tons of ore on a draft not to exceed 17 feet, and takes a consort in tow which carries another 5,000 tons. It may not appear to be a profitable business to carry ore at the average rate which has prevailed during the present contract season, of 60 cents per ton, and in point of fact it has not been so for the smaller vessels. But taking as the standard such steamers and their consorts as those which compose the Rockefeller fleet, the business is

easily susceptible of a handsome profit at that rate. The initial cost of a steamer of 430 feet long, with a carrying capacity of 5,000 on a 17-foot draft, is \$250,000. The steel-hull which serves as a consort will cost a little more than half as much, or, say, \$130,000. The time taken to load such a steamer and her consort with 10,000 tons of ore at the upper lake port is only a few hours. The time required to unload is considerably more under the present system of unloading from the boat to the railroad car, and may exceed half a day. The steamer and her consort returned from the Lake Erie port to the upper port, light or in water ballast. After making all allowances for the time consumed in loading, unloading and preparing for the return voyage the round trip of steamer and consort is made within nine days.

"It will be perceived that in a season of 180 days these two vessels can make 20 round trips and carry a total product of 200 tons of ore. On a basis of 60 cents per ton the gross earnings of the twin carriers, representing an original investment of \$380,000, will thus amount to \$120,000. Allowing \$1,500 per round trip for coal and expenses of operation we have a season's cost of \$30,000. Add \$8,000 for insurance and write off ten per cent. per annum for deterioration and repairs, and there remains a net return of \$44,000 on the estimated capital of \$380,000. This must be admitted to be a perfectly satisfactory business for Mr. Rockefeller.

## A LIFE SAVER SAVED.



CAPT. CHARLES H. MOTLEY.

Some ridiculous charges were brought against Capt. Charles H. Motley, of Cleveland, and he has been exonerated by the board. Capt. Motley is one of the best men in the service and his character in above reproach.

feller, whatever it may be for those owning vessels of a less developed type. Regarded in one way, it is possible to make too much of the influence of the Rockefeller fleet on the earnings of lake shipowners. There are from ten to eleven million tons of ore to be moved, and the entire Rockefeller fleet will not carry much more than 1,500,000 tons of this product. It is, in the nature of things, impossible that one-seventh of the tonnage required to move the ore product of Lake Superior should absolutely control the earnings of the other six-sevenths. Then, there are all the other articles of lake transport, from wheat to coal and lumber, to be provided for by the other components of the lake fleet. But, on the other hand, the fact must be recognized that the type of vessel best calculated to do a large business at a low rate of freight is destined to be the controlling type, and the transfer of lake freights to steamers and their consorts carrying from 4,000 to 5,000 tons is fairly under way. The older vessels, constructed while the capacity of the lake channels did not exceed 12 to 14 feet, are thus gradually becoming unprofitable, partly on

the score of their lack of adaptiveness to the improved methods of loading and unloading, partly because of their lower relative speed and partly from the larger proportion which their working expenses bear to their earning power. In other words, while the 5,000-ton steamer may do a profitable business on an ore rate of 60 cents a ton or on the coal and grain rates proportioned to it, the steamer of 2,000 tons and under may find some difficulty in yielding a return to her owners.

"This is, in brief, the shipping situation on the lakes to-day. There is an additional consideration which is beginning to bear hardly on the people who own vessels merely, and who do not have any control of either mining property or of the furnaces which consume the product of the mines. The carrying of the ore has come to be done either as a supplement to the ownership of the ore or as a tender to the business of its consumers. In Mr. Rockefeller's case it is a great mineowner owning his own boats, and turning over the control of the product of his mines only on the condition that his boats shall be employed to carry it. In the case of the Minnesota Iron Company, there is the combined ownership of mines, steamers and furnaces, and, should the Carnegie Company begin to build steamers, as it is their reported intention to do, there would be a similar combination. Arrangements of this character obviously tend to exclude the mere shipowner from any participation in one very important branch of the lake carrying trade. There can hardly be a question that the development which has already taken place in this direction will be carried much further, and that mines, railroads, steamers and consorts will all be worked in conjunction with the great iron and steel producing establishments. This is a branch of the subject which is, however, of sufficient magnitude to demand separate treatment in another letter."

## LOSS OF THE WINSLOW.

The schooner Kate Winslow laden with pig iron, foundered in Lake Michigan, off Seul Choix Point, last week. Capt. E. J. Cuyler and crew succeeded in reaching the shore without loss of life, and made their way to White-dale, a small town a short distance from Manistique. The schooner and cargo are a total loss.

The Winslow left Gladstone bound for Sandusky, O. She was in tow of the steamer Queen of the West, which also had the schooner May Richards in tow, the Winslow being the last of the three. After leaving Green Bay the vessels encountered a heavy southwest gale on Lake Michigan. Laden deeply with 1,200 tons of pig iron, the schooner labored heavily in the sea and every wave swept her deck.

When the boats were about fifteen miles from Gull Island the tow line parted. The Queen of the West and Richards had all they could do to take care of themselves, and the Winslow was left to her fate.

Driven before the southwest gale the schooner ran north, laboring heavily in the sea and making poor work under her shortened sail. Her master was using every endeavor to get under the shelter of Seul Choix point, which would afford a refuge from the gale. Before the schooner could get into shelter, she commenced to leak badly, and when ten miles from the point the crew abandoned her for the life boat. She foundered soon after.

Once in the lifeboat the crew of the Winslow made the land in safety. She was commanded by Captain E. J. Cuyler, who was managing owner of the vessel. He places the value of the ship at \$15,000. She was insured for \$10,000 with eight different companies. She had an A2 rating. The Winslow was built in 1871, and measured 699 tons net. She was formerly one of the fleet of fine sailing vessels which were the pride of lake mariners twenty years ago, before the days of steam.

After losing the Winslow from her tow, the Queen of the West proceeded to Mackinaw City and reported her loss. Then she went for Cheboygan to wait tidings of the missing schooner.

## NEW DOCKS.

It is expected the contract for constructing the Duluth & Iron Range ore dock will be let in a few days. Contractors are figuring on estimates for the work at present.

The new dock will really be one of the old ones at Two Harbors rebuilt and enlarged. When finished it will be the third largest on the Great Lakes, having a storage capacity of 40,000 gross tons. The Missabe dock No. 1 and the big dock at Escanaba are the only docks that are larger than the new Iron Range dock will be.

The enlarging of the dock will increase the total capacity of the Iron Range ore dock plant from 120,000 tons to 136,000.



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Marine Reporter.

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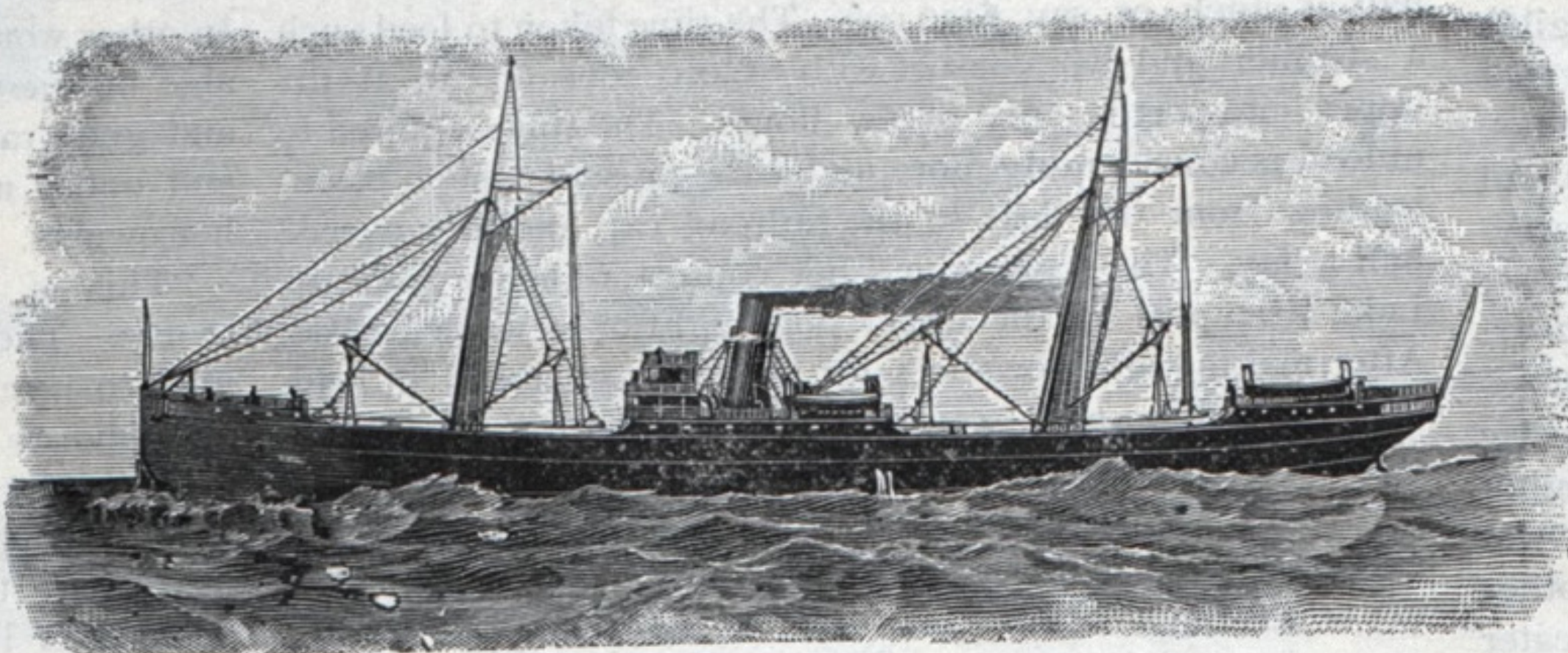
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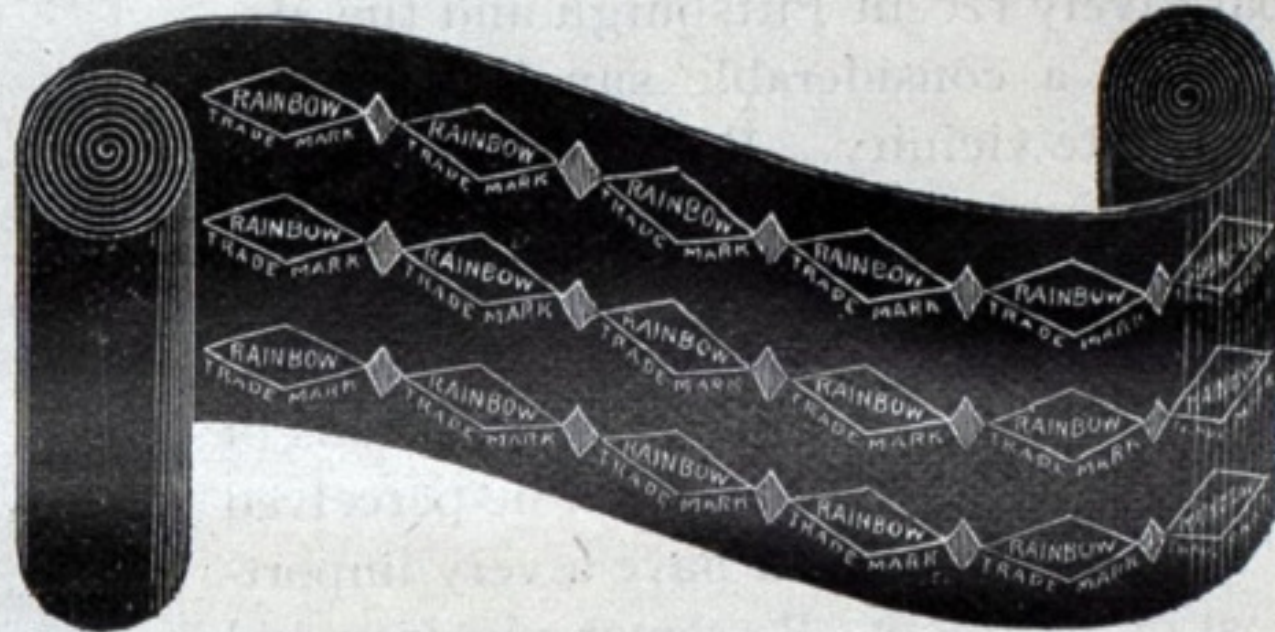
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Pressure.

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Don't have to use Wire and Cloth to hold Rainbow.  
Rainbow won't Blow Out.

**THE SCREW PROPELLER SIXTY-TWO YEARS OLD.**

(Continued from page 7.)

"After her return from London to Hull, the Archimedes made several very successful over-sea voyages, leaving everywhere the impression that she had succeeded in proving that a vessel could be efficiently propelled by a screw. She was later on lent to Mr. I. K. Brunel, who carried out various experiments with her at Bristol with different forms of screws, and it was through the very satisfactory results attained with them that the Great Britain steamship, originally intended for propulsion by paddles, was altered to adapt her for the reception of a screw."

**MARITIME LAW.**

(United States District Court, Southern District of New York, Sept. 9, 1897.)

In this country and in England it has been held that the mere fact that the common peril arose by bad navigation, or bad management of the ship, or that a remedy in damages therefor may exist against the shipowner, does not prevent recovery of general average compensation by a cargo owner against the ship and against other cargo owners for his sacrifices made for the common benefit. *Pacific Mail S. S. Co. v. N. Y. H. & R. Mining Co.* (City of Para), 69 Fed., 414, affd. 74 Fed., 564. *Strange v. Scott L. R.*, 14 App. Cas., 601, 609. And several of the maritime codes expressly so declare. Lord Watson, in delivering judgment in House of Lords, says:

"The owners of the goods thrown overboard having been innocent of exposing the Abington and her cargo to sea peril which necessitated jettison, their equitable claim to be indemnified (by a general average contribution) for the loss of their goods is just as strong as if the peril has been wholly due to the action of the winds and waves."

Under this decision, if the shipowner be "innocent of exposing the ship and the cargo to the common peril" as he is under the Harter Act, or whatever a valid exemption from liability exists by the bill of lading, the shipowner's right to an average contribution must be sustained. Accordingly in the subsequent case of *The Carron Park* (L. Rep., 15 Prob. Div. 403) Lord Hannen, then President of the Probate Division, sustained the shipowner's claim to contribution from the cargo in general average for expenses caused by negligent navigation, where by the terms of the bill of lading the shipowner was relieved of all responsibility for such negligence; and this upon the simple ground that "the relation of the goods owner to the shipowner has been altered by the contract that the ship owner was not to be responsible for the negligence of his servants."

It is urged that the Harter Act makes no allusion to general average was not designed to disturb the law on that subject. This might have been urged more plausibly as to the effect and intent of the negligence provisions in bill of lading. Several of the above adjudications as to the effect on general average of such clauses in bills of lading, were made long before the passage of the Harter Act; and the history of that act shows that it was a part of its general intent, to secure to shipowners under our law and within the limits prescribed by our act, the benefits enjoyed by shipowners under such bill of lading exemptions by the foreign law. One of the benefits to the shipowner by the foreign law under such exemptions, as already adjudged when the Harter Act was passed, was the right to a general average contribution; and the inference, if any, as to the actual intent of our act would be that it was designed to embrace that incidental consequence; at least, the contrary cannot be affirmed.

The application of this new relation of non-responsibility under the Harter Act to cases of general average does not, in fact, make the least change in the principles of general average contribution. The rule remains as before, that he by whose fault actual or constructive, the ship and cargo have been brought into danger, cannot recover an average contribution for his expenses in extricating them. And so the counter rule remains as before, that the interest which, being without fault, makes sacrifices for the common rescue, is entitled to an average contribution from what is thereby saved. Prior to the Harter Act the shipowner, under our law, was constructively in fault for bad navigation, and hence fell within the former rule. The Harter Act by abolishing his constructive fault and freeing him from all responsibility, withdraws him from the former rule and entitles him to contribution under the latter.

In *Ralli v. Troop*, 37 Fed., 898, it was said that "to deny the owners the benefit of a general average contribution on the ground of negligence, would impose on them, in effect, a liability for the fire from which the statue exempts them (Rev. St., Sec 4282 ;" and so in the present case, to say that the shipowners shall bear at their own charge all the expenses voluntarily incurred by them in rescuing this ship and cargo from a common peril for which the statute says they shall not be responsible, and to give to the cargo owner all the benefits resulting to him from these expenses, without charge by refusing to impose on him the ordinary contribution in general average always hitherto made not in fault is, in effect, to make the shipowner responsible, pro tanto, for the peril and its consequences, contrary to the very letter and purpose of the statute; since the owner is often practically compelled to make these advances for the common safety, though not legally responsible for the fate of the cargo.

It is, indeed, the owner's duty to relieve ship and cargo



in every peril so far as in his power; but not to do this at his own charge, unless the peril arose through his actual or constructive fault (The Portsmouth, Wall, 682, 687). If the law denied contribution to him for sacrifices made for the common good when he was not in fault the result plainly would often be disastrous to cargo. Maritime policy and necessity not only forbid any such rule, but ages ago they established the opposite rule; that compensation shall be made to those who, not standing in relation to any legal responsibility, make sacrifices for the common safety. The Harter Act certainly was not designed to disturb the principle; and it requires the owners in this case shall receive due contribution from the cargo.

2. Nor do I think, upon the proof, that any error was made in allowing contribution for the gross freight on the cargo jettisoned, without deduction for the light expense which would have attended actual delivery.

The condition of the average bond upon which the action is brought is that the losses and expenses shall be apportioned by the average adjusters "in accordance with the established usages and laws in similar cases." The general rule requires the adjustment of average to be made according to the usages of the port of destination, or where the voyage is ended, which in this case was New York. The evidence shows clearly that the long established usage here has been to allow the gross freight; and where the bond adopts the local usage, it controls, even if the general law were otherwise (Stewart v. West India Pac. Co., L. R., 8 Q. B., 88).

Decree for the libellants for the two items claimed, with costs.

The Liverpool Journal of Commerce says that arrangements are expected to be completed by the end of the month for placing in England considerable orders for iron and steel material and ship plates to be used on vessels to be repaired and thoroughly modernized or built in Japanese waters. It is computed that during the next eight years the total outlay by Japan on account of naval developments will not be less than \$125,000,000, but this will include a considerable

sum for heavy ordnance, machine guns and modernizing the older vessels. By the end of 1904 the Japanese government hopes to have six first-class battleships of 12,510 to 15,250 tons, three second-class battleships, six first-class, nine second-class, and seven third-class fast armored cruisers, five torpedo gunboats, three torpedo depot ships; fifteen torpedo boat destroyers, with speeds ranging to thirty-three knots; 125 torpedo boats, and twenty-nine gunboats and fighting sloops. Japan, according to the same authority, has recently formed the intention to contract in the United States for a large supply of swords, naval cutlasses, and bayonets to replace obsolete arms.

#### VISIBLE SUPPLY OF GRAIN

As compiled for The Marine Record, by George F. Stone, Secretary Chicago Board of Trade.

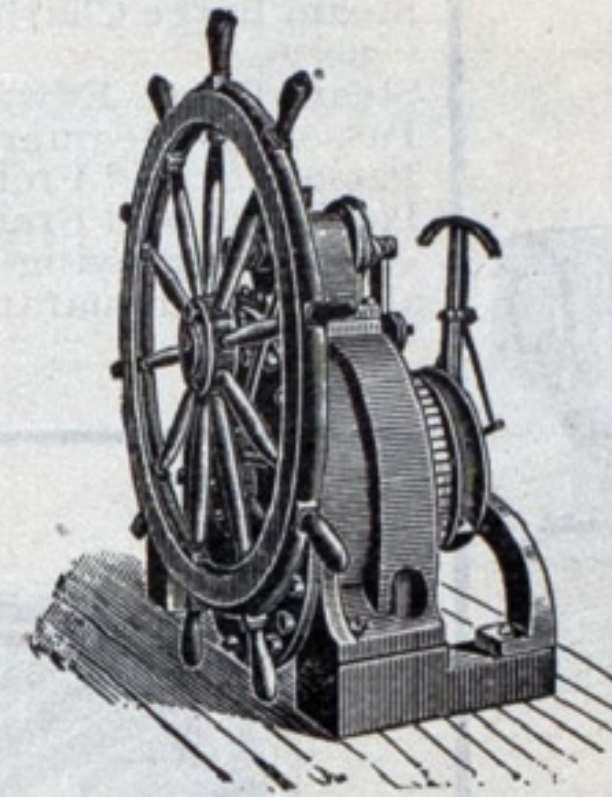
CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY. Bushels.
Albany.....		125,000	70,000		
Baltimore.....	1,072,000	523,000	315,000	150,000	
Boston.....	671,000	991,000	23,000		
Buffalo.....	1,460,000	892,000	357,000	58,000	798,000
afloat.....					
Chicago.....	3,119,000	19,766,000	2,970,000	854,000	450,000
afloat.....					
Cincinnati.....	8,000	4,000	9,000	8,000	28,000
Detroit.....	301,000	22,000	18,000	39,000	13,000
afloat.....					
Duluth and Superior.....	3,288,000	486,000	181,000	659,000	721,000
afloat.....					
Indianapolis.....	181,000	165,000	25,000	1,000	
Kansas City.....	1,573,000	225,000	77,000	34,000	
Milwaukee.....	167,000	336,000	77,000	51,000	157,000
afloat.....					
Minneapolis.....	3,981,000	552,000	2,585,000	94,000	12,000
Montreal.....	300,000	23,000	260,000	83,000	25,000
New York.....	2,319,000	9,906,000	3,748,000	338,000	154,000
afloat.....	25,000	155,000	14,000		40,000
Oswego.....	22,000	145,000			40,000
Peoria.....	3,000	114,000	98,000		2,000
Philadelphia.....	828,000	1,654,000	75,000		
St. Louis.....	1,510,000	1,066,000	638,000	268,000	8,000
afloat.....	130,000				
Toledo.....	341,000	480,000	439,000	49,000	
afloat.....					
Toronto.....	39,000		4,000		10,000
On Canal.....	523,000	1,041,000	391,000	271,000	382,000
On Lakes.....	2,069,000	1,826,000	2,508,000	203,000	567,000
On Mississippi.....					
Grand Total.....	23,930,000	40,497,000	14,882,000	3,160,000	3,407,000
Corresponding Date, 1896.....	54,808,000	17,175,000	10,135,000	2,350,000	3,411,000

#### EXHIBIT OF THE PEERLESS RUBBER MANUFACTURING COMPANY.

The Peerless Rubber Mfg. Co., of New York, occupied a store during the convention of the National Association of Stationary Engineers held at Columbus, O., last week, and exhibited a full line of their engineering goods, particularly Eclipse Sectional Rainbow Gaskets, Rainbow Sheet Packing, Honest John Hydraulic Packing and Peerless Piston Packing. The Rainbow Gauge Glass Rings, Anaconda Steam Hose for use in blowing out tubes, belting, hose, rubber valves, etc., received particular attention from the delegates. Their Rain-Besto gaskets for very high pressure being cut with metallic insertions, received special attention. The exhibit was handsomely prepared and the goods made a fine showing. They will send samples to any one desiring to test the merits of their goods.

Hudson Dickerman, of New York, was in charge of the exhibit, W. J. Courtney being also in attendance. They presented the ladies with handsome bouquets on the night of the reception and entertained the delegates with royal hospitality.

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GREVILLE E. FRYER, Sec'y and Treas.

T. HOUARD WRIGHT, Marine Secretary.

EUGENE L. ELLISON, Vice President.

JOHN H. ATWOOD, Assistant Secretary.

Lake Marine Department, GEORGE L. MCCURDY, MANAGER.  
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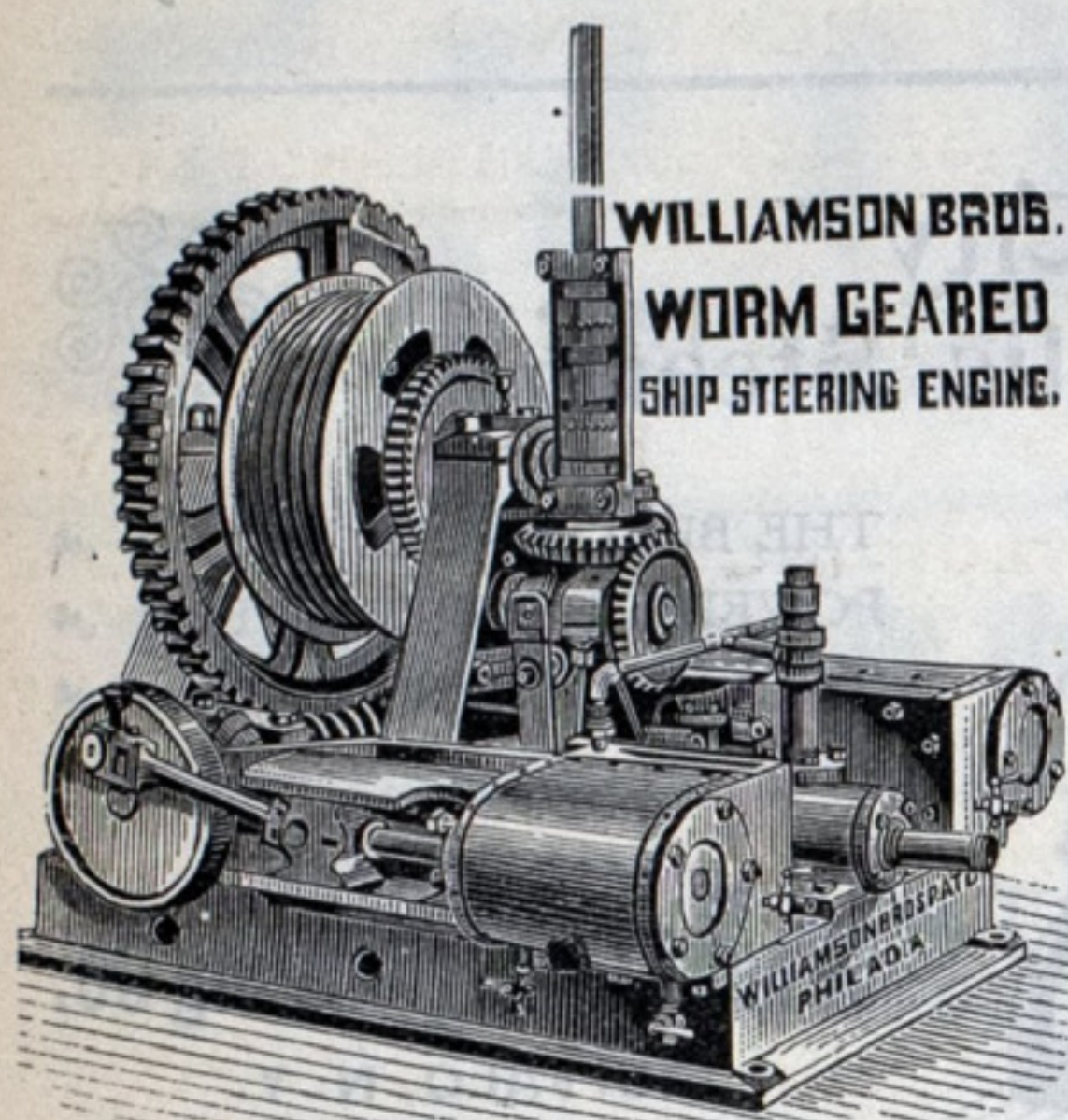
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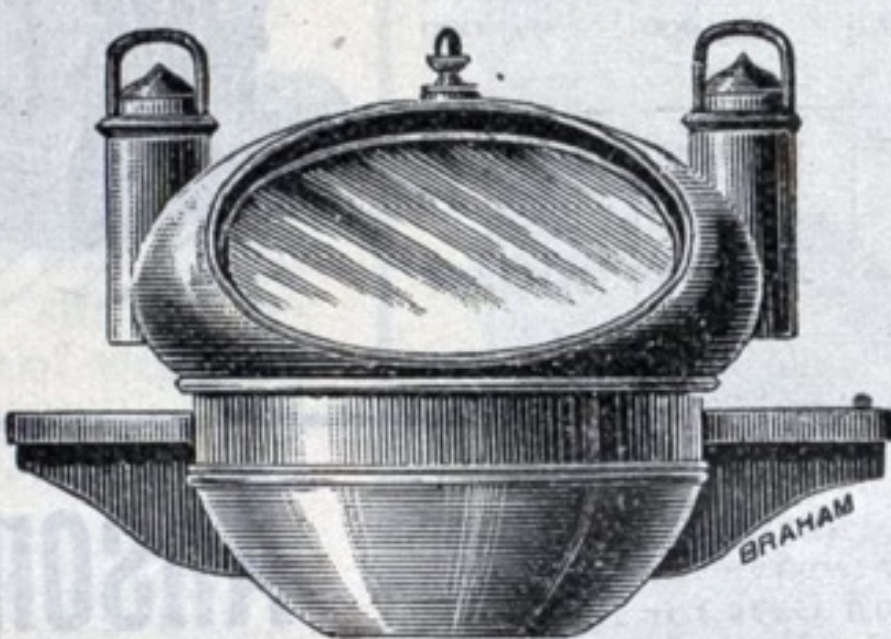
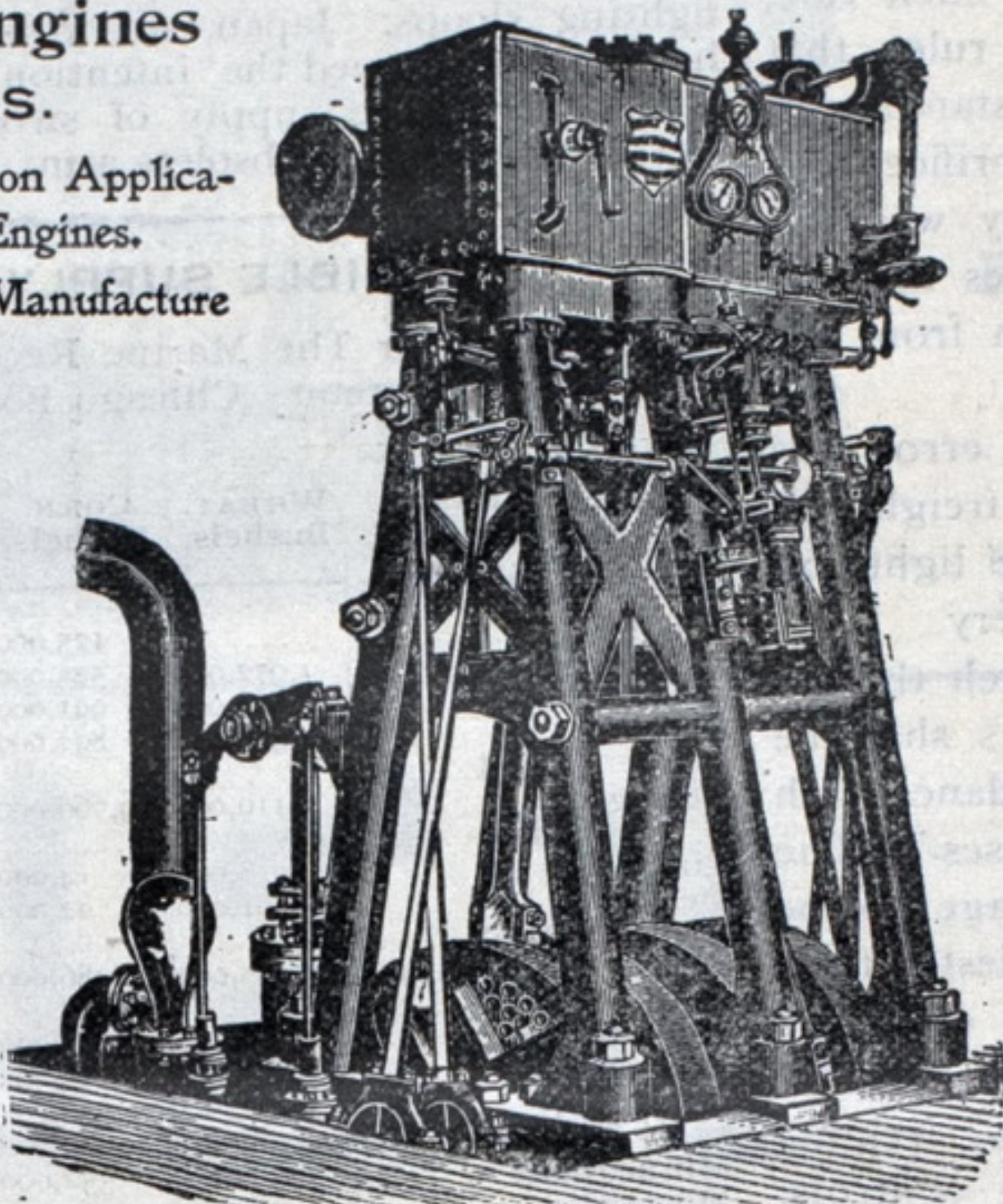
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 Steamer Lorain L., South Haven, 12 and 21x16.  
 Passenger Steamer Lotus, Escanaba, 16 and 30x24  
 Steam Barge Sachem, Grand Haven, 21 and 38x36  
 Passenger Steamer Bon Ami, Saugatuck, 14 and  
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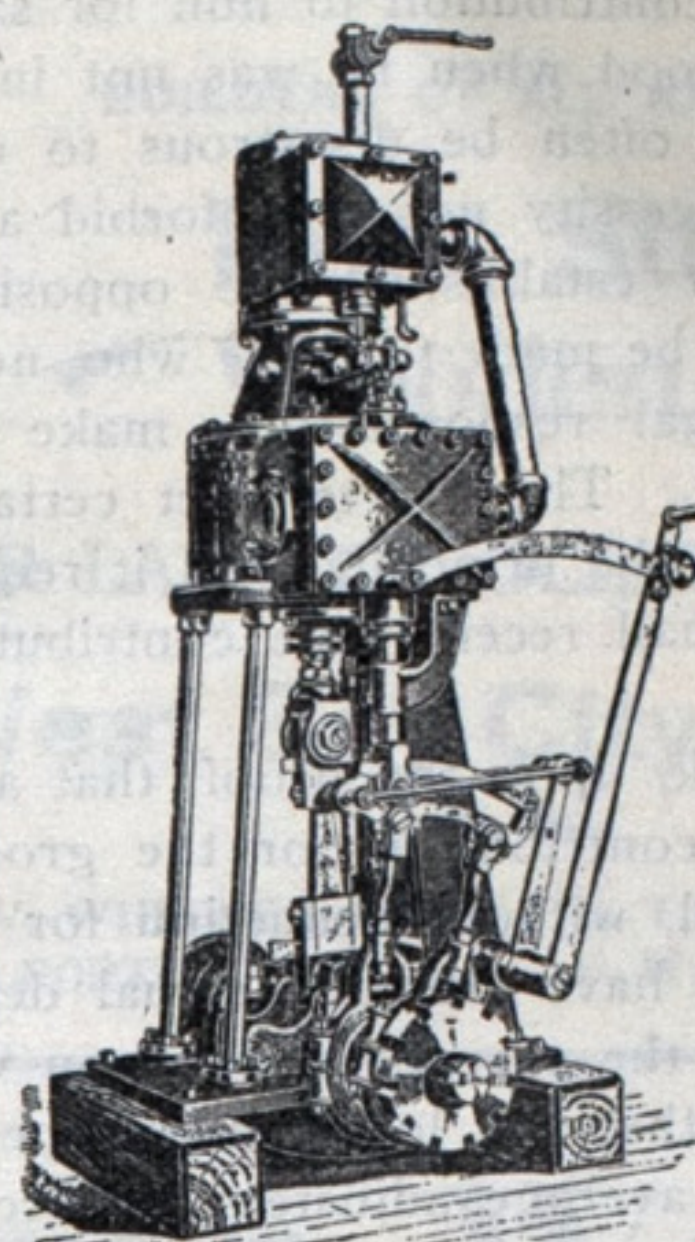
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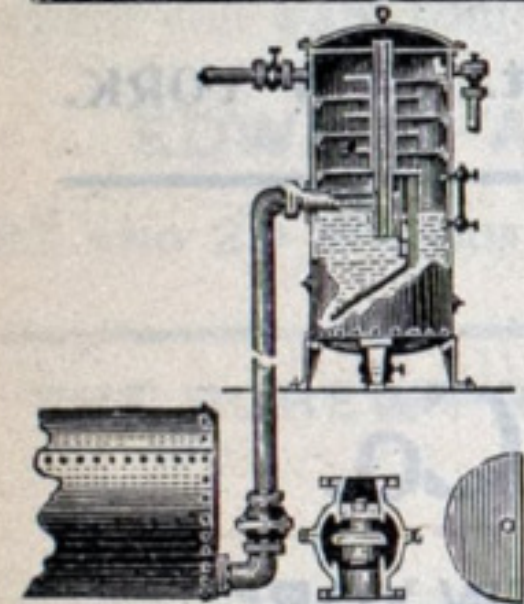
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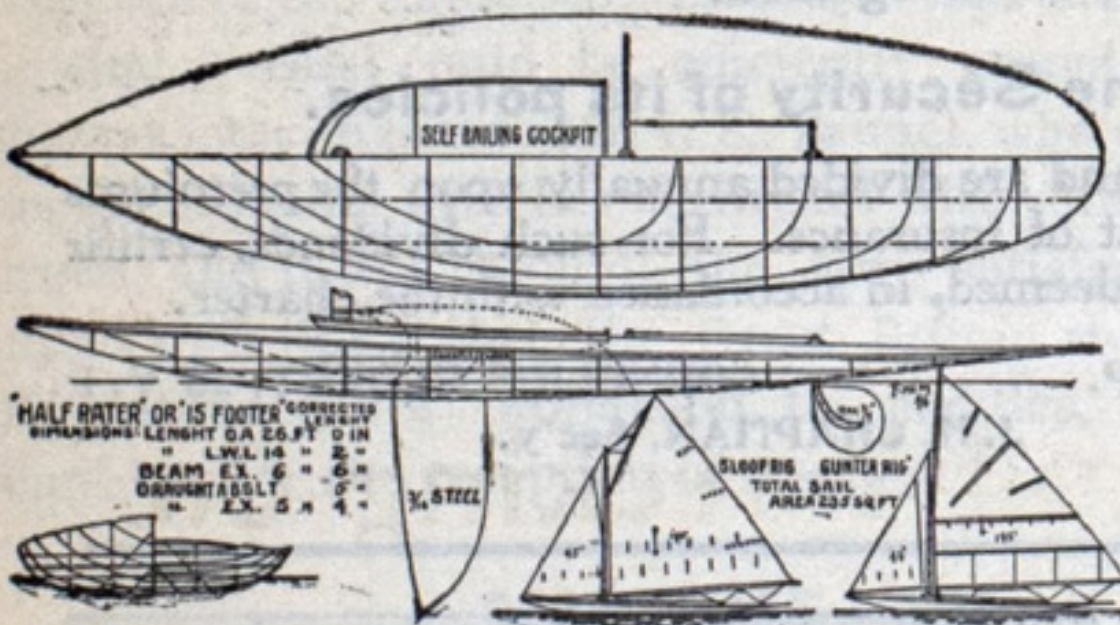
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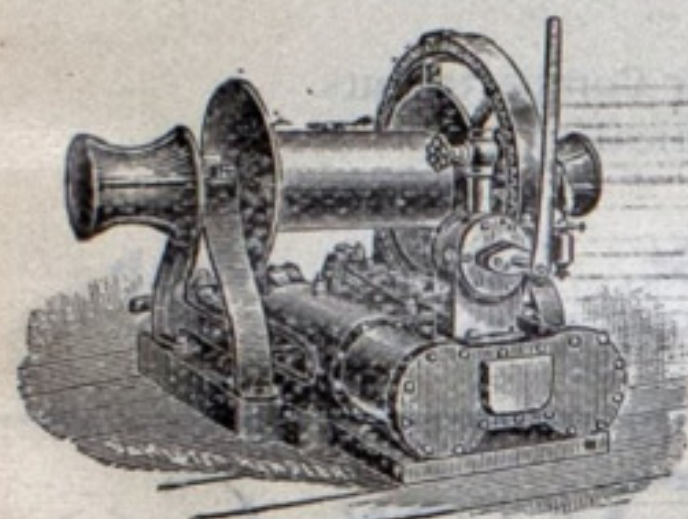
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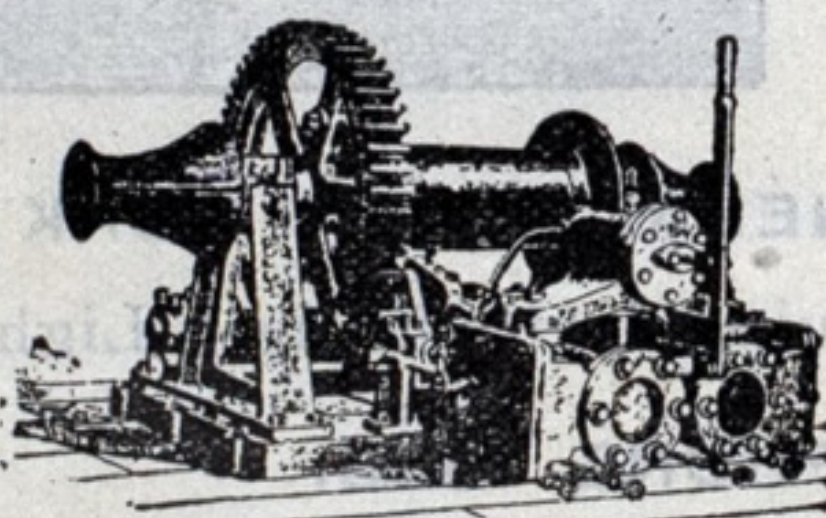
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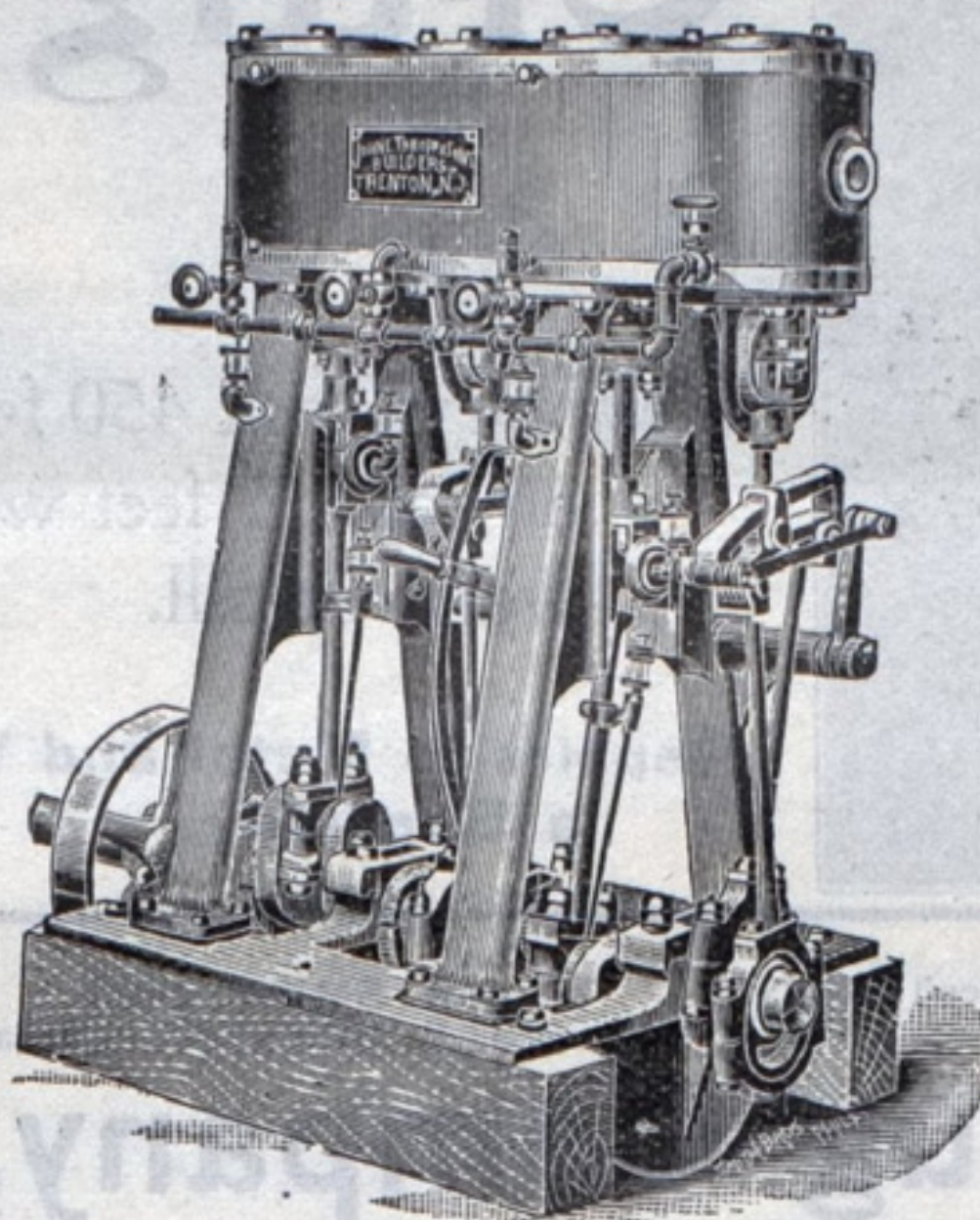
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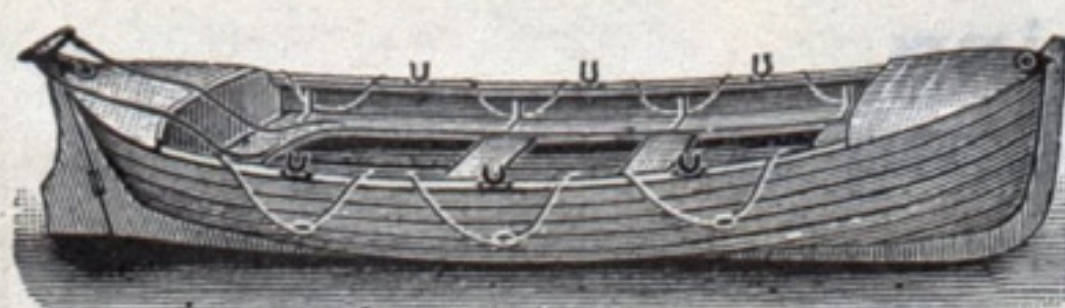
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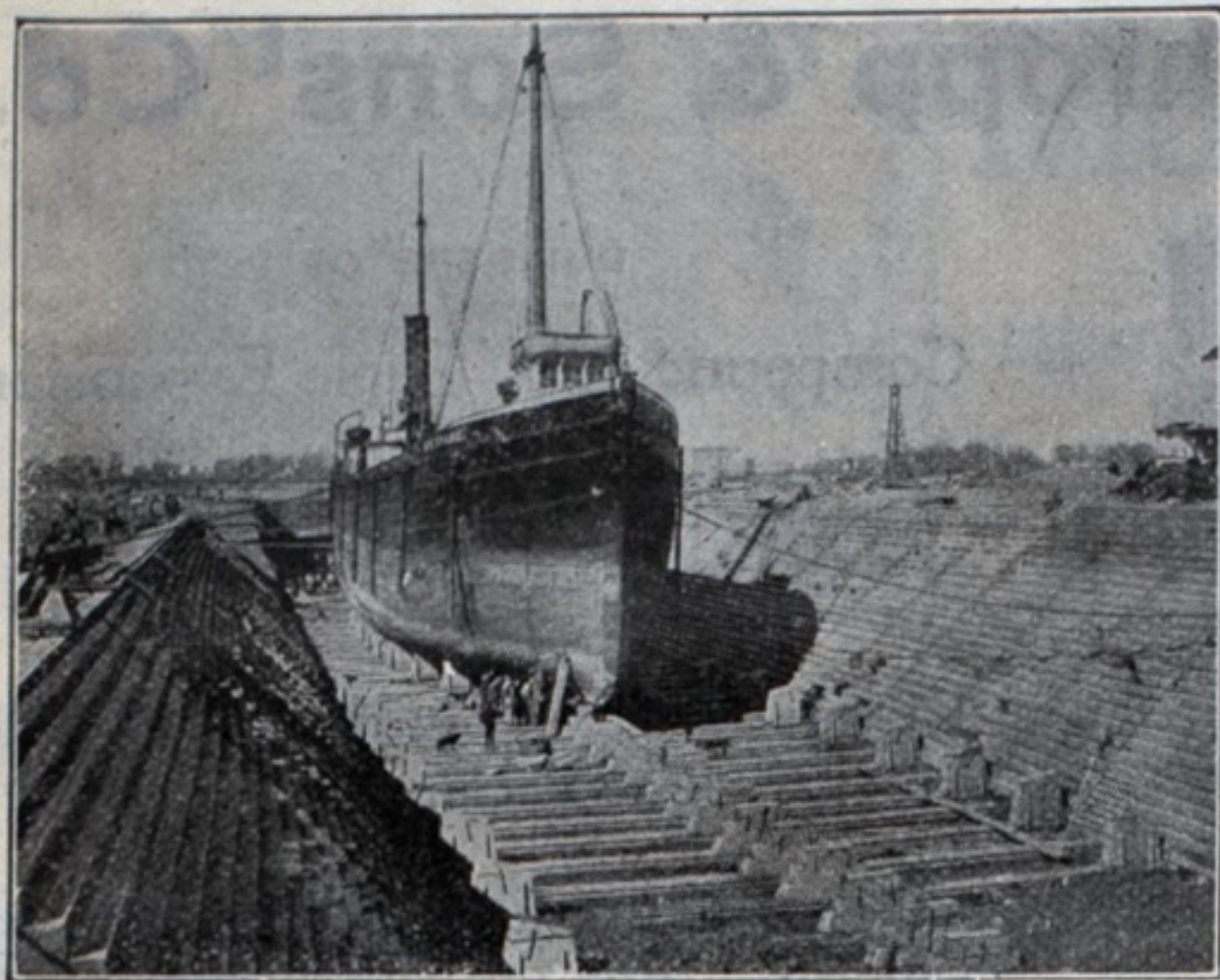
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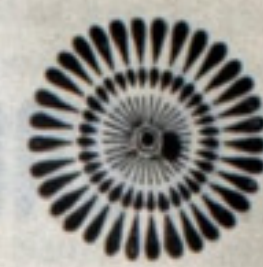
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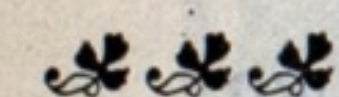
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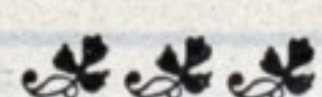
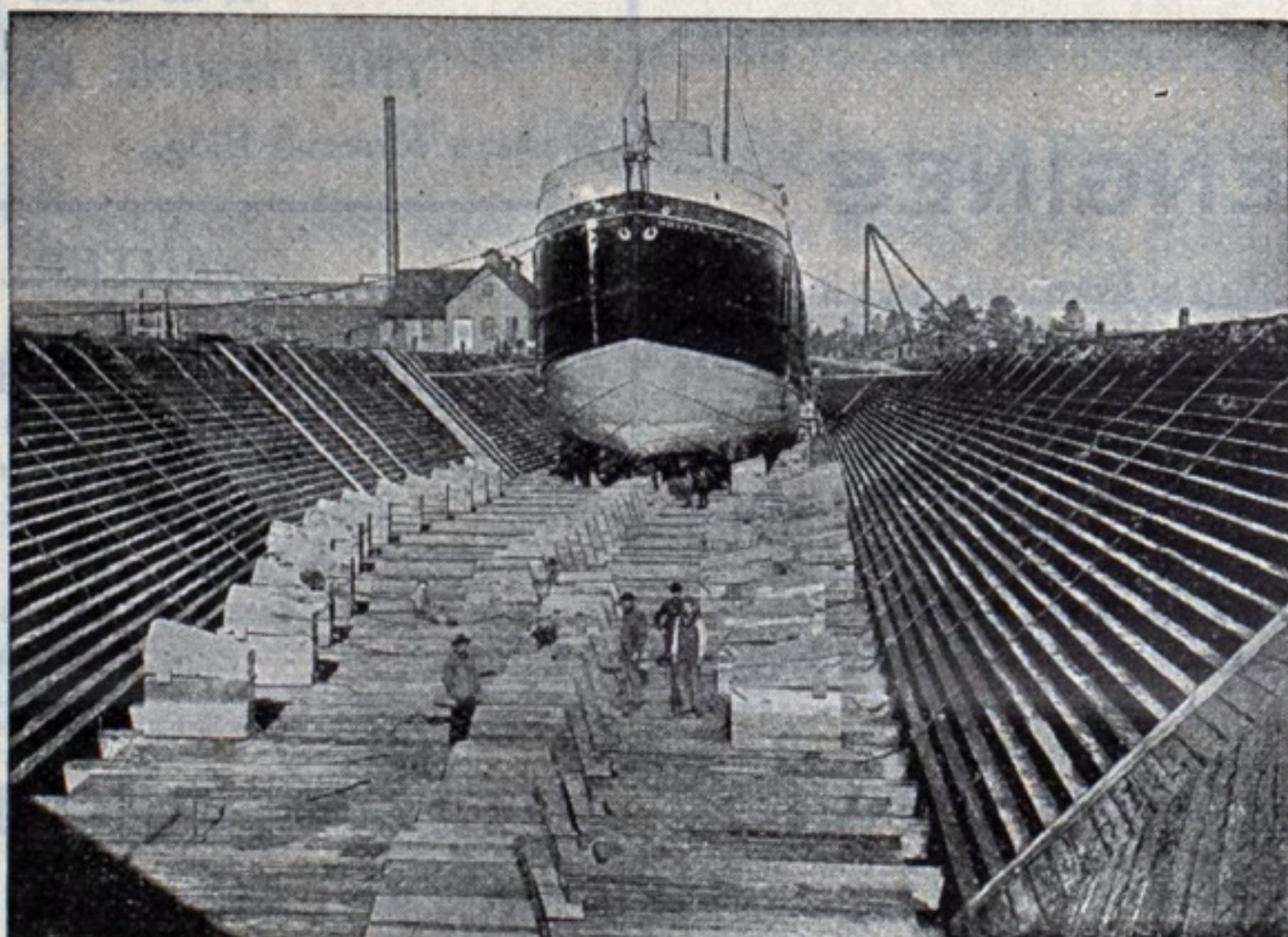
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Prices for Repairs and Docking same as at Lower Lake Ports.

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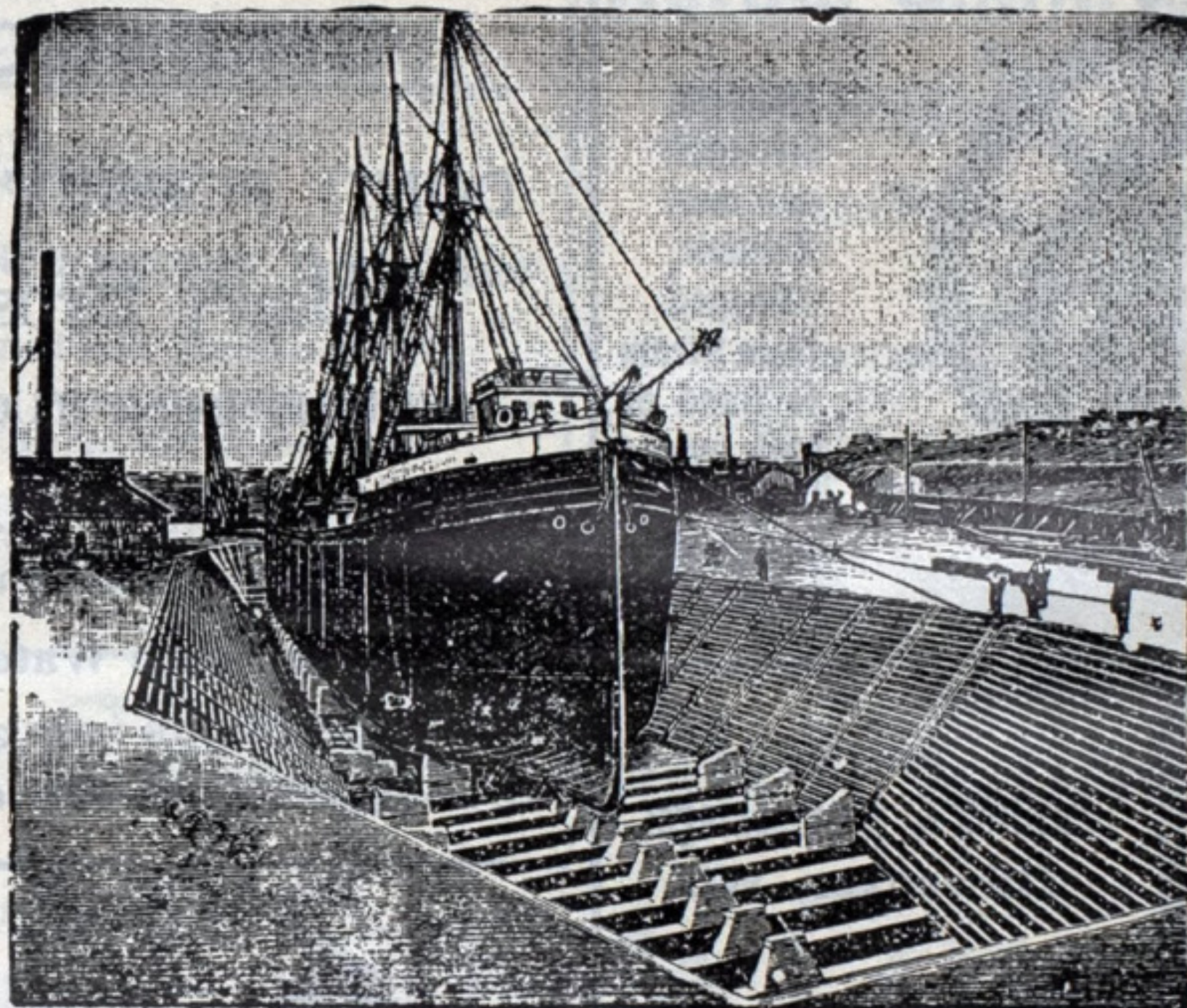
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